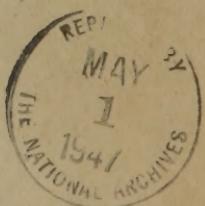




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1822

PRACTICAL
O B S E R V A T I O N S

IN

MIDWIFERY.

—
WITH

A SELECTION OF CASES.

—
—

BY JOHN RAMSBOTHAM, M. D.

Lecturer on Midwifery at the London Hospital, and one of the Physician-Accoucheurs to the Lying-In Charity for delivering Poor Married Women at their own Habitutions.

—

WITH NOTES,

BY WILLIAM P. DEWEES, M. D.

Lecturer on Midwifery, Member of the American Philosophical Society, Member of the Philadelphia Medical Society, Member of the Academy of Medicine, &c.

—

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ADVERTISEMENT OF THE AMERICAN EDITOR.

THE Editor was so much pleased with Dr. Ramsbotham's work on Midwifery, that he thought he would be doing an acceptable office to the Medical Community in this country, should he cause it to be republished. He believes he does not say too much, when he declares it to be, in his opinion, one of the best practical works (so far as it goes) extant. It is from a sincere wish to be useful to his more distant brethren, that he has undertaken the office of an editor, as very few copies of the work were imported, and they bore a high price; a sufficient number therefore could not be procured, did not the cost itself deter; and he ventures to declare that any man's library will be enriched by the possession of the work. He is happy to find, from the declaration of the Author, (and on this ventures to congratulate the Profession) that he will give at a

future period the result of his experience upon other subjects of obstetrical practice.

The Editor has ventured to add a few notes to the text of his Author; for this he shall make no apology, for if they are found of any importance, they will need none, and if they are not, it will in no way supply the defect.

TO

JOHN SIMS, M. D.

SIR,

IF the warmest feelings of personal friendship had not proved a sufficient inducement to me to inscribe the following pages to you, the acknowledged superiority of your professional acquirements, added to the peculiar consideration of your holding the office of CONSULTING PHYSICIAN-ACCOUCHEUR to the *Lying-in Charity for Delivering Poor Married Women at their Own Habitations*, would at once have pointed out you as the most proper person to whom I could offer a dedicatory address. But, Sir, allow me to say that the influence of the former motives has had its due weight in imposing upon me this grateful task.

Having had the honor of being associated with you, for many years past, as one of the *Physician-Accoucheurs* to the above-mentioned Charity, I can duly appreciate your valuable services. You have,

indeed, for an unusual, nay, almost unprecedented length of time, discharged the arduous duties of your situation, with the first-rate credit to yourself, as well as with the greatest advantages to the Institution, and to its objects. You have my best wishes, that you may long enjoy such a state of health, as will enable you to continue your professional usefulness. Your associates have merely to tread in your steps to ensure to themselves public confidence and esteem.

The fact, perhaps, is not generally known, that more than five thousand women are annually delivered by the midwives of this extensive Charity, in the several districts of this large Metropolis. Of the whole number, about one-half is relieved in the district of which I have the official charge. A wide range of actual experience is thus offered to its medical officers, from which they can scarcely fail to derive an useful stock of practical knowledge.

Under your auspices, I beg leave to tender to the Profession the first fruits of those observations, which have been derived from this extended source, this fertile field; as well as from a considerable share of private practice; and, I trust, they will be generally received with that candour, in which they are written. In the relation of the several cases, I have confined my remarks to a brief and simple detail of

facts ; and I have, at the same time, carefully refrained from the mention of names in praise or censure. But I have occasionally noticed the melancholy consequences of ignorance and mal-practice, as salutary beacons, to warn the rash and inexperienced practitioner of hidden danger, and to furnish such cautions, as may prevent him rushing headlong into similar mischief.

Be pleased, Sir, to accept the sincere assurances
of the highest respect and esteem from

THE AUTHOR.

BROAD STREET BUILDINGS,
1st January, 1821.

PREFACE.

THE following pages have not to boast of any nosological arrangement, nor of novelty in practice or theory. They will be found simply to contain what the title announces, Practical Observations in Midwifery ; viz. on subjects connected with Labour, and its consequences ; which have been derived from clinical experience. I have merely stated such facts as I have seen ; such, indeed, as have occurred in my own practice : I may have omitted many remarks which ought to have been inserted, but I have not availed myself of the writings of others ; I have, in the present instance, declined that advantage.

The introductory remarks, in themselves of little value, became necessary to the completion of my plan, that I might the more perfectly contrast the situation of a woman at the full period of pregnancy, with that immediately after the conclusion of the act of labour, in

order to determine the importance of those changes which are brought about by natural agencies under the act, and to draw the reader's attention to them. For I am sorry to think, that it has been too much the custom in practical midwifery, to consider mechanical expulsion of the uterine contents, or their extraction, as the principal, nay, almost the sole object of professional duty, to the neglect, if not to the exclusion, of attention to the changes above hinted at, and which are of far more importance to the security of the patient.

The remarks on Natural Labour are short and concise ; noticing rather the general occurrences under the process, than offering rules of management. But, on the several states under which the Placenta may be found, my observations have been more extended, and, I confidently hope, not to the disadvantage of the suffering sex. I have endeavoured to call the watchful attention of my brethren to a case, which is by no means uncommon, and which, if overlooked, may, in a short time, be productive of the most fatal consequences, viz. the relaxation of the Uterus under flooding, especially under internal flooding, either before or after the extraction of the Placenta ; and I feel persuaded, that the mere mention of

the fact will be sufficient to excite that attention.

My observations on the different cases of Protracted Labour, under a natural presentation, are confined to practical points: I have scarcely ventured to offer an opinion on contested questions, being desirous of avoiding professional controversy: nor have I thought it necessary to explain the mode of application of the several instruments, since that is more properly the duty of a teaching professor, than of a writer, and since practice alone can make any one adroit at their use. I have certainly introduced a great number of cases on several of the subjects, but my apology must be found in the interest of the subject: I have selected such as seemed to me to bear more particularly on the principal points of the text, or such as possessed some striking singularity. The cases on the Rupture of the Uterus, will evince the fallacy of the too generally received opinion, that there is no danger in a common natural labour, except from flooding; they also shew that a parturient woman may be endangered by a cause which no human efforts can counteract.

If the following observations tend but in the

slightest degree to the ultimate improvement of our useful profession ; if they draw the attention of the accoucheur to points which are occasionally overlooked ; and if they thereby prove useful to any parturient woman, I shall not regret the time and trouble the publication has taken up. Should the present attempt be favorably received, I may be induced, at some future time, to continue and extend Practical Observation to other cases of difficulty and danger in the act of Child-birth.

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INTRODUCTORY OBSERVATIONS.

THE act of Child-birth consists in the expulsion of the contents of the Gravid Uterus by certain active agents.

This act, even under its most simple and most natural appearances, is a complicated process: it embraces a variety of general actions, and of local changes, peculiar to itself; upon the timely performance and due completion of which, the safety of the mother and of the child is dependent.

The terms *act of child-birth*, *act of parturition*, *labour*, and other terms of similar import, embrace in their meaning the **AGENT**, or **ACTING POWER**, the **ACTIONS** of that power, and the **EFFECTS** produced. The Uterus, assisted by the voluntary efforts of the diaphragm and of the abdominal muscles, is the general agent in this process¹: those contractile throes, excited by natural causes, are the actions of the agent; and the descent and expulsion of the uterine contents, with such changes as are subsequent

1 [The author has expressed himself a little carelessly here—we suppose he means that volition in time of labour brings the diaphragm and abdominal muscles into action, as it has a controul over them; the idea is correct, but not clearly expressed.—A.M. Ed.]

to that event, are the effects. The word labour, in common use in our language to express this natural act, is, therefore, complex in meaning and application, though so apparently simple in expression.

The act of Labour is generally, if not always, accompanied by more or less of painful sensation.—The pain of Labour is a consequence, a mere effect of contraction : it arises from the resistance offered to the contractile effort of the agent² : it is so immediate a consequence of, and so constant an attendant upon, uterine contraction, that the one is almost inseparable from the other. Hence uterine contraction and labour pain have been assimilated with each other. They have been considered almost synonymous, and have been used by many authors as convertible terms.

The words *uterine action*, *uterine efforts*, *parturient action*, *parturient efforts*, and others expressive of the actions of the agent, are all similar in meaning, and will be used in a similar sense.

That the magnitude and importance of the actions and changes above referred to may be correctly estimated, and that their effects may be sufficiently understood, I will call the reader's attention to a brief description of the Gravid Uterus, of its relative

2 [We admit, that pain is generally felt upon uterine contraction, but not always. We have more than once witnessed labours without it altogether, and others accompanied by so little, as scarcely to solicit attention—we therefore have for many years declared our belief, that there was no absolute or physical necessity for pain in human parturition. See *Med. Mus.* vol. I. p. 270. We do not believe that pain arises so much from "the resistance offered to the contractile effort of the agent," as to a peculiar condition of the uterine fibres, from changes wrought upon them by civilization and refinement. See *Essay upon the Means of lessening Pain and facilitating certain Cases of Labour.—A.M. Ed.*]

situation with regard to the abdominal viscera, and of its contents, at that period of time when this viscus has attained its highest degree of developement and enlargement, that is, towards the completion of the ninth month of pregnancy.

This description can be expected to present nothing new. It will merely state appearances as they arise. Some apology may perhaps be necessary for inserting it at all, especially as the subject has been so ably handled by the celebrated Dr. Wm. Hunter, in his *Anatomical Description of the Gravid Uterus*. But as I am desirous of contrasting the difference between the Uterus under a gravid state at the time abovementioned, and that organ under a contracted state, in the first instance immediately after the act of labour is completed, and subsequently, when all the proper changes are effected;—as I am anxious also to impress upon the mind of my reader the necessity of attending strictly to these changes, and of being perfectly acquainted with their regular course and consequences, I could not with propriety withhold it. Previous to this description, however, I beg to offer a few words, generally,

ON THE UTERINE STRUCTURE.

THE Uterus has commonly been considered, and indeed is usually described by Anatomists, to be muscular in its structure.

This notion appears to be rather an assumption derived from the contractile powers, which this vis-

cus is known to possess, and which are supposed only to exist in muscularity, than to originate in obvious appearances. However authors may write, and teachers may talk about the uterine muscles, no such structure is evident to my senses³.

Let this viscus be examined with an impartial eye, with an unbiassed mind, either under gravidity or unimpregnated, and its muscularity, in the proper sense of the term, will, I think, scarcely be admitted.

Muscular structure consists in a congeries or bundle of fleshy fibres or filaments, connected together by cellular membrane, and appropriated to motion or action, voluntary or involuntary. Now, if this definition of muscularity be correct, any structure, which does not accord with it in some degree, must be other than muscular. Is there, I would beg to ask, any distinct set, or are there any distinct sets of muscular fibres connected by cellular membrane, severally perceptible throughout the whole or any part of the uterine parietes? Or is such a distribution of muscular structure evidently visible in its composition, as appears capable of producing effects equal to those of uterine contraction under the active state of labour? Does the human body offer any instance of muscular structure being for such a length of time perfectly quiescent; of its assuming and acquiring a degree of growth and evolution similar to that of the Uterus under a state of impregnation;

³ [That the muscularity of the uterus cannot be detected in the unimpregnated state, or even in the early months, must be admitted; but towards the latter end or at the full period of utero-gestation, it is most readily demonstrated, if any reliance can be placed upon the dissections of Mr. Charles Bell. See Lond. Med. Chirur. Trans. for 1813.—A.M. Ed.]

and after the performance of certain actions resuming its pristine state and appearance without any obvious alteration ? If satisfactory answers cannot be given in the affirmative to questions like these, the uterine structure ought not, in my opinion, to be called or considered muscular. It is true, that in a longitudinal section of the unimpregnated Uterus, artfully made, a concentric appearance of fibrous texture is discernible, but it is in no wise similar to a division of muscular fibre ; indeed it is not similar to the section of any other structure in the human body ; it bears rather the resemblance of a cut made into a half-tanned hide, being equally firm, dense, and compact. A fibrous structure is more observable about the openings of the fallopian tubes than in any other part of the internal surface of the Uterus : but this appearance is so completely local and circumscribed, that if viewed in the light of muscularity, it cannot be supposed capable of influencing the action of the general parietes ; it must be confined to the uterine extremities of the tubes alone ; it can therefore deserve little notice in the consideration of the active powers of the Uterus.

Let a virgin Uterus, about the age of twelve or fourteen years, before any of its functions have commenced, be compared with one of a woman of the age of fifty or sixty years, who has borne many children, so that its contractile efforts have been repeatedly exerted, but to whose economy it has now become an useless viscus, do we, on such comparison, observe that difference in appearance and structure, which such efforts, if muscular, would indelibly have left behind them ? The latter may,

perhaps, be found somewhat larger in size, and its opening into the Vagina more flaccid ; otherwise its external appearance, and even a division of its substance offers little perceptible difference. To this add, that an excised portion of the impregnated Uterus feels soft and flabby, and is readily extensible between the fingers.

Some analogy of action has been supposed to exist between the hollow muscular structures of the human body, the urinary bladder, for instance, and the Gravid Uterus ; and the action of the former has been adduced to elucidate that of the latter viscus. In the bladder, muscularity equal to all the effects produced, is evident to the eye, particularly under some diseased states of that organ : if it were equally visible in the Uterus, no difference of opinion could possibly exist : every one would be agreed on that point. The thinness of the vesical parietes readily allows the bladder to be distended, far beyond its natural size, by inflation ; but the thickness of the impregnated Uterus, and the degree of resistance it possesses, prevents a similar effect.

That the Uterus, under a state of gravidity, does possess strong powers of action, by which its parietes are reduced within a smaller bulk, and by which the capacity of its cavity is diminished to an extent unequalled by any other organ of the human body, is a fact too obvious to be denied ; but that these effects are connected with, and dependent upon muscularity, appears to me a point rather assumed than satisfactorily proved : and certainly the examination of the Uterus in the different classes of brute animals, throws no light on the doctrine of muscularity.

Let us contrast uterine action, which is independent of the will, therefore involuntary, with the action of any of the involuntary muscles of the body, and we cannot but remark a sensible difference between the two. Take, for instance, the action of the heart :—It consists in one continued series of quickly performed alternate contraction and relaxation, by which the blood is propelled from, and received into, this vigorous organ, without intermission, during life. Uterine action also partakes of alternations of contraction and relaxation, but they are of a stronger, of a more active, and of a more irregular description. The action of the heart, under a state of health, is performed almost without a sense of consciousness, at least without painful sensation ; that of the Uterus is always accompanied with more or less pain. The action of the heart is constant and uniform ; that of the Uterus only occasional, under peculiar circumstances. But I may be asked, if the uterine structure be not muscular, of what description is it ? Is it tendinous ? Is it cartilaginous ? Is it membranous ? Certainly not : it partakes of the properties of none of these structures. The Uterus possesses a structure strictly *sui generis* ; one peculiar to the organ. The animal body has not another of a similar kind : it is therefore incapable of being elucidated by a reference to any other.

Uterine action is a property attached to this peculiarity of structure under a state of extension ; and I see no more difficulty in supposing it to be impressed with the power of contracting upon its temporary contents, without reference to muscularity, than that muscularity should possess the power of

moving those parts to which its several portions are affixed. We know either only in its effects.

I admit that uterine action appears to be more assimilated to muscular action in power and effect, than to any other in the animal body ; yet the resemblance does not approximate so closely, as to allow no distinction between them : the assistance of certain muscles is also borrowed in the act of labour, so that some part of the process is muscular.

The property of contraction is only possessed by the Uterus under enlargement from gravidity or disease : it is absent in the healthy unimpregnated state : it is quiescent throughout the course of pregnancy, unless excited by an adequate cause : it is always called into action at the full period of gestation, when the Uterus has reached its achm  of growth : it is, in short, the natural means by which this organ is enabled to rid itself of its contents.

If the muscularity of the Uterus be still contended for, it must be allowed to exist under great peculiarities of structure and function.

The uterine structure freely admits the reception of arteries and veins, of nerves and absorbents into its composition, from the neighbouring parts, of which it is unnecessary for me to offer a description : I will merely observe, that these severally undergo considerable relative changes under pregnancy and labour, especially the blood vessels ; and that, to the liberal distribution of nerves through its general substance, this viscus is indebted for the energy it is enabled to exert⁴.

⁴ [Notwithstanding all that our ingenious author has urged against the muscularity of the uterus, we are not convinced that it is not purely a muscu-

ON THE SIZE, SHAPE, AND SITUATION OF THE GRAVID
UTERUS, AT THE CLOSE OF PREGNANCY.

1.—*On its Size.*

TOWARDS the end of the ninth month of pregnancy, the Uterus is found to have attained an extraordinary degree of developement and enlargement, in comparison with its size when unimpregnated. If the fact did not daily present itself and prove the reverse, such a change in appearance and structure would seem incompatible with healthy functions. In every other instance such an acquisition of bulk would indicate a state of disease.

But pregnancy is a natural and a healthy condition : it evinces, indeed, the most perfect uterine health.

lar organ—the whole phenomena of labour declare it to be such—it alternately contracts and relaxes upon the application and the withdrawing of stimuli—in the Cæsarian operation we are told that it powerfully contracts and becomes paler upon the application of the knife ; that it soon after becomes relaxed and redder. That it has not the regular display of fibres as is found in the larger muscles of the body, must be admitted ; but this does not prove it has not muscular fibres. Our senses are not always sufficient to guide us to the knowledge of intimate structure, especially where the object is minute, yet we admit without hesitation the peculiar structure, when we reason analogically upon the subject—for instance, with what prospect of success could we undertake to demonstrate the muscularity of the heart of a gnat ? yet we should admit without scruple that it is muscular, because this structure is evident in the hearts of larger animals ; and its peculiar functions force us to admit they are performed by the same agency as in the larger animals, whose hearts are known to be composed of muscular fibres ; now, as we know of no other structure but that of muscle that will contract and expand alternately, we are forced to believe that whatever has this capacity, derives it from the same or similar organization.—AM. ED.]

The increase of size does not depend upon any actual deposition of new animal matter within the uterine structure, as is the case in diseased organization ; nor upon distension of the Uterus by its living contents : it has its origin and continuance in a process of healthy growth and extension throughout the whole mass, and the several component parts of the Uterus. The vascular system, especially, receives a more than proportionate augmentation ; through which is circulated an increased quantity of blood equal to the enlarged diameters of the vessels.

That there is no actual deposition of new animal matter within the uterine structure during pregnancy, appears to me evident in the established fact, that the Uterus, by a process of silent and gradual contraction, continued for some time after the expulsion of its contents, can and does possess the power of daily diminishing its volume, till it has acquired its smallest unimpregnated size ; when it is again able to resume its original and peculiar functions. But if the parietes of the Gravid Uterus be supposed to owe their size to bulk, acquired by the deposition of new animal matter, by what natural means is that matter so suddenly removed? Can the effects of absorption be thought equal to it? We see no such rapid diminution of size from the powers of the absorbent system under diseased structure. Contraction alone explains it⁵.

That the acquisition of bulk is not dependent upon distension, by the growth of the uterine contents, is evinced in the absence of extenuation, and of thin-

5 [In this we agree most fully with our author, for we taught this doctrine five and twenty years ago.—AM. ED.]

ness of the parietes of the Uterus, during the process of pregnancy. Those parts are, indeed, rather increased in thickness, though they possess less closeness and firmness of texture⁶.

The process of utero-gestation in woman, and, indeed, in the higher orders of the brute creation, is so completely a condition *sui generis*; so singularly itself: that it may truly be asserted, that no other class of actions similar to it exists in nature.

The state of growth above alluded to commences with impregnation: it is gradually progressive as the evolution of the foetus and its appendages proceeds: it is naturally terminated at the completion of the period of pregnancy, or rather when the Uterus commences its preparations for those exertions which finally end in the expulsion of its contents. This growth may be determined, previous to its perfection, at any period of gestation, by a cause sufficient to effect the death of the foetus. From the moment the foetus is bereft of that inexplicable *something* in which the principle of life consists, the Uterus ceases to increase in size: it loses the power of growth and enlargement; and, at length, sooner or later, as circumstances prevail, a contractile action is established, by which the uterine contents are ultimately excluded.

6 [In our estimation, there can be no doubt but that the ovum exerts an influence upon the uterine parietes, and has an agency in their distension—and from the consideration of this simple fact, that if the liquor amnii be evacuated either by accident or design, the uterus instantly contracts upon its contents. The uterus not becoming thinner during its expansion, is no proof that the ovum has no agency in it, since it maintains its thickness by the increased size of its vessels; for if we abstract this cause, we find that the uterine parietes are absolutely much thinner than in the unimpregnated state, as has often been proved by the dissection of those who have been exhausted by floodings.—A.M. ED.]

During the developement of the Gravid Uterus, an extension of its peritonæal covering necessarily takes place; which is accompanied with a proportional increase in the diameters of those vessels supplying that coat. After the end of the fourth month, a material alteration is observable in the relative situation of the broad and round ligaments. This change is more particularly a consequence of the local enlargement of the fundus of this viscus.

2.—*On the shape of the Gravid Uterus.*

AT the close of pregnancy the Uterus assumes the shape of a pear; it is extended at its fundus, and becomes contracted towards its cervix; it is not much unlike the fresh bladder of an ox just inflated, only thicker in substance.

If the uterine tumour be examined towards the close of pregnancy, by the hand externally applied, a roundish body of considerable magnitude is perceptible, offering a firm degree of resistance. But the degree of resistance is not always uniform: I have occasionally met with a distinct undulation under the hand, as if the Uterus did not embrace its contents. On handling the Gravid Uterus after death, a degree of flaccidity is observed in its general parietes: it feels as if it was not distended. This occurrence probably arises in the loss of tone consequent to death⁷. During life, the uterine parietes are in close

7 [It also arises from the uterine vessels being deprived of great part of their blood, as is proved in the cases alluded to in Note 6.—AM. ED.]

contact with their contents, without any actual compression, until the subsidence of the uterine tumour before labour, when the first state of contraction commences, and when the tumour acquires an increased degree of hardness.

3.—*On the situation of the Gravid Uterus.*

THIS organ, in the ninth month of pregnancy, occupies nearly the whole of the fore part of the abdominal cavity, at least of that portion of it under the name of umbilical and hypogastric regions: its anterior and superior peritonæal surface is in contact with the peritonæal lining of the abdominal parietes, stretching them to a vast extent. Its fundus, partially covered by the omentum, is pushing up the arch of the colon towards the diaphragm, is slightly compressing the stomach, the pancreas, and the thin edge of the liver, and somewhat encroaches upon the space occupied by the viscera of the chest: its posterior surface is lying upon the mesentery, and a considerable portion of the intestinal canal, behind which are running the large blood-vessels and nerves of the trunk: and its sides are extending towards and above the Ilia. The several parts of the abdominal contents occasionally suffer from pressure during the latter stages of pregnancy, except the blood-vessels and nerves of the trunk, which are protected by the projection of the spine; the kidneys and ureters are exempted from annoyance by that also. Previous to the fourth month of pregnancy, the Gra-

vid Uterus is entirely confined within the pelvic cavity ; but sometime in the course of that month, its fundus begins to emerge out of the pelvis ; and, rising and enlarging as the process advances, that organ at length attains the situation above described. In its ascent it is placed anterior to the intestinal canal and the viscera of the abdomen ; though, in one instance, in which I was consulted respecting a fixed pain in the side, the fundus of the Uterus was distinctly perceptible under the thin edge of the liver, so that it was raising and compressing this portion of that viscus against the ribs.

The Uterus is preserved in the situation above described by its broad and round ligaments, which are relatively altered in scite and size, by its connexion at its cervix with the pelvic viscera, and by the resistance afforded anteriorly by the abdominal parieties.

The cervix of the Uterus and the parts contiguous undergo considerable change towards the end of pregnancy. The cervix uteri becomes shorter and thinner ; the os uteri assumes a more expanded and softer appearance ; but it still remains sealed up by that gelatinous secretion which was furnished in the early stages of pregnancy, and which yet consolidates its orifice. The os uteri is also at this time beautifully studded with small gland-like prominencies provided for secretory purposes.

ON THE CONTENTS OF THE GRAVID UTERUS, BEFORE
THE COMMENCEMENT OF LABOUR.

THE Uterus now contains within its cavity a living child, of variable weight and size, at its full period of evolution and growth, with those appendages of nourishment and defence peculiar to uterine life, viz. the placenta and funis umbilicalis, with the membranes, and the liquor amnii within them. I have just stated, that the Gravid Uterus contains a living child ; but this fact cannot always be satisfactorily ascertained ; a child may lose its life towards the end of pregnancy from numerous causes ; yet it is ever an important point of professional duty to consider the child alive, and so to treat it, till there is positive proof to the contrary.

This living child occupies, within the Uterus, the smallest space in which a body of equal magnitude and irregularity can be packed. The head, in a natural presentation, is directed downward : with the vertex nearly in the centre of the brim of the pelvis ; with one ear towards the linea alba, and the other towards the spine ; having the occiput towards one ilium, and the face towards the other ; or more frequently, perhaps, the head is placed somewhat diagonally, with the vertex as abovementioned, but with the occiput, or forehead, looking towards either groin ; and an ear towards one of the sacro-iliac junctions. The chin inclines upon the chest ; the neck and spine are gently bent ; the breech, rounded by the thighs, being brought forward against the

belly, is situated at the fundus of the Uterus; the legs are turned back upon the thighs, or are crossed, so that the knees and chin are made to approximate; the arms are placed across the chest, or one over the chest, and the other by the side of the face or thighs. The back of the child may be applied towards either side of the mother, towards the right or left hypogastric region, or towards the right or left sacro-iliac junction. It is rarely, perhaps never, directed immediately towards the linea alba, so that the face looks to the spine of the mother.

If the breech of the child be the presenting part, the above description equally applies, with the exception, that the breech offers itself at the brim of the pelvis, and the head, with the chin inclined towards the chest, is situated at the fundus of the Uterus. In either case, the general form of the whole is that which approaches the shape of an oval, and in which the entire bulk takes up the least room.

The beautiful description of the *Fœtus in Utero*, by the celebrated Harvey,* seems rather applicable to the case in which the breech is the presenting part, than to that in which the head offers; yet from the latter part of it we may guess at the opinion of that eminent anatomist: he supposed, in common cases, that some time before the commencement of labour, the head of the child, which had been previously situated at the fundus of the Uterus, was spontaneously directed downward by a natural alteration of position.

* *Vide Harvei Opera*, 4to 1766, p. 541.

This idea was the concurrent opinion previous to, and during, Harvey's time, but it is now known to be erroneous. Whatever situation the Fœtus in Utero assumes in the early stages of gestation, it retains that situation throughout the whole of pregnancy, and so presents in the time of labour. Although there be, relatively, in the early months, a larger quantity of liquor amnii in proportion to the size of the embryo, than in the more advanced stages, which may be supposed to allow it a free and ready motion in every direction on change of posture in the mother, the disproportion gradually diminishes as the process advances, so that by the completion of the seventh month, the relative quantity of that fluid is so lessened, as to be found insufficient to permit the change of position supposed.

ON THE PLACENTA.

THIS mass forms a most important part of the uterine contents, whether we refer to the nature of its structure, to the mode of its attachment to the uterine surface, or to its general uses. Its structure is entirely vascular, with the simple interposition of connecting cellular membrane; so that its general substance, when excluded the Uterus, is found to consist of the different branches and divarications of the umbilical arteries and vein, united together by fine cellular texture, with a quantity of foetal blood in those vessels. The whole of this mass is strictly fœtal: it contains within its general structure certain

cells or sinuses of considerable extent, with proper boundaries, into which the uterine vessels at the point of contact open, and over which their contents are circulated and returned as long as this mass is attached to the uterine surface. This cellular portion of the Placenta has acquired the name of *maternal*.

The Placenta possesses within its structure the means of two distinct circulations, each of which is conveyed through proper channels. The one passes the mother's blood from the uterine parietes into the placental cells, and returns it back to the Uterus : this is properly the maternal circulation, and continues as long as the Placenta remains attached to the uterine surface : if detachment take place, a flooding ensues ; which is proportionate to the quantity detached, and the size of the uterine vessels. The other conveys the blood of the child from its body and back again, through the numerous ramifications of the umbilical vessels ; this forms the foetal circulation. These two circulations are so completely separate and distinct, that they do not interfere with each other : each is entirely unconnected with, and independent of the other, as far as positive communication of vessels is concerned : the foetal vessels do not pass their contents into the placental cells, neither do the uterine vessels, communicating with the placental cells, pass their contents into those of the foetal structure. There is, then, no admixture of foetal and maternal blood ; and no circulating communication, direct or indirect, exists between the Uterus and foetus, except at that part to which the Placenta is attached, and through its medium.

The Placenta in the cow and in the sheep, possesses a structure essentially different from that mass in woman, but answering the same purposes to the young animal within the Uterus. In these animals, the maternal portion is perfectly uterine: it consists of numerous round eminencies with a hollow in their centre, thence termed *cotyledons*. The internal surface of the Uterus is plentifully studded with these bodies, into which the blood vessels of the foetal portion are inserted, and over which they circulate their contents. The cotyledons are readily injected from the uterine vessels; and when successfully injected, form one of the most beautiful preparations of a museum. The difference of structure observable in the Placenta of the abovementioned animals, and that of woman, affords a satisfactory solution of that query,—why they are never liable to a dangerous loss of blood, under the act of parturition, like woman?

A correct notion of the mode in which the principle of life is communicated to the embryo, of the materials whence its rudiments are evolved, or of the manner in which the Placenta becomes appropriated to its service, has hitherto not been obtained, and perhaps never will be obtained: yet these points are obvious and acknowledged, though they remain unexplained to our satisfaction. Without entering then into any mysterious and useless discussion on such an intricate subject, let me be allowed to assume the following as facts, which almost admit of demonstration.

That when conception has taken place, even as soon as impregnation is effected, a principle of inter-

nal action, and of external growth, is established in the Uterus; by which its parietes are at length enlarged in every direction, and its cavity is increased in capacity. This principle, apparently slow in its progress, and scarcely visible for some time after its commencement, is by and by evident to the senses, and increases rapidly. That, in consequence, as one of the immediate effects of these primary changes, a secretion is furnished by the vessels of its internal surface, which becomes at first the connecting medium between the mother and the embryo, and afterwards the deciduous membrane: that a secretion, also, of a thicker and more viscid nature, is supplied by the cervix uteri, which hermetically seals its orifice during the whole period of gestation: that when the impregnated Ovum, *viz.* that something impressed with the principles of life and growth in the intercourse of the sexes, is received into the uterine cavity, it attaches itself to some one point to which the uterine vessels are more particularly directed, and at which also certain vessels from itself are implanted. These several parts increase in size and extension, with the addition of intervening connecting membrane, till the rudiments of the Placenta become apparent, and when its rudiments are once formed, a gradual and regular increment of its whole substance proceeds onwards, proportionate to the demands of the embryo for nourishment, and to the general uterine growth.

The Placenta adheres to the Uterus by a simple apposition of parts, and by that peculiar connexion of vascular circulation which subsists between the uterine vessels at the point of contact, and the pla-

ental cells. The blood vessels of the Gravid Uterus run through its parietes in a serpentine direction ; and in the distribution of blood, the venous system possesses a larger diameter than the arterial. Though the Placenta be apposed in so simple a manner to the uterine surface, it is not in immediate contact with that surface ; the deciduous membrane intervenes, and becomes the bond of connexion between the two, except at those points at which the uterine vessels pass their blood into the placental cells ; so that when the Placenta is withdrawn, that membrane is the visible covering of the outer surface, which had been in contact with the Uterus.

The Placenta is commonly attached to the fundus or body of the Uterus, but there is no part of its internal surface at which this mass may not occasionally be found ; it is sometimes met with implanted over the mouth of that viscus.

The uses of the Placenta are also strictly foetal. It is an organ originally formed for, and appropriated to, the service of the foetus, and when formed, it is the only communication between the mother and her infant ; it is the sole medium through which the principles of nourishment and growth can be conveyed from the mother. The foetal blood, distributed by the branches of the umbilical arteries over the placental mass, receives certain benefits in that circulation necessary to foetal life ; and being returned to the body of the child by the umbilical vein, replete with that nourishing and vivifying *something*, which it has acquired in its passage through the Placenta, this blood is quickly circulated over all parts of the child's body. The blood of the child,

under this state of improvement, may be compared to that of the adult after its passage through the lungs, and its return to the left side of the heart. If interruption to the return of the foetal blood from the placental circulation occur from any cause, the life of the foetus is as certainly destroyed, as if the free passage of the air into the lungs were prevented under breathing life.

When the Placenta is partially separated from its uterine attachment, a loss of blood, proportionate to the quantity separated, and the size of the uterine vessels, is a necessary consequence. The blood lost, under such circumstances, is maternal, not foetal : if, after such an occurrence, the foetus lose its life, its death is produced by, in the first instance, a deprivation, and at length, an entire loss, of that vital impression which is communicated to the blood of the child by its passage through the Placenta. But if the mass of the Placenta be ruptured, as, for instance, by the passage of the hand through its substance into the Uterus, under a case of misplacement of the Placenta over the mouth of the Uterus, the blood of the foetus will be discharged through the ruptured vessels.

ON THE FUNIS UMBILICALIS.

THE umbilical cord is a rope-like production covered by the membranes, originating in, and proceeding from, the body of the foetus, and terminating in the Placenta. Its structure is cellular ; and within the

cells is deposited a quantity of gelatine, which gives bulk and solidity to its general substance, and which affords protection to the umbilical vessels running through its whole length. Two arteries arising from the internal Iliacs carry a large proportion of the child's blood through the course of the Funis to the Placenta, which, after its circulation over that mass, is returned to the child's body by one large vein. The Funis is liable to variation in length and thickness, and is able to resist a considerable degree of extractive force, without rupture.

ON THE MEMBRANES.

THE Chorion and Amnion are the proper membranes of the impregnated Ovum, and probably exist during its dormant state in the Ovarium. They pass from the umbilical cord over the inner surface of the Placenta, and leaving its circular edge, keep in contact with the deciduous membrane throughout the whole internal surface of the Uterus, except at that part to which the Placenta adheres. These two membranes are usually so closely applied to each other, as to leave no intermediate space, and to appear as one membrane: sometimes they are not in immediate contact, and a quantity of fluid, similar to the liquor amnii, is interposed.

They contain within their bag-like cavity the liquor amnii; that fluid with which the child is surrounded. As long as the membranes remain entire, the uterine parietes are kept at a distance from

the body of the child. The premature discharge of this fluid is sooner or later followed by uterine contraction and expulsion. The liquor amnii is variable in quantity, appearance, and smell: sometimes it is serous and pellucid, at others turbid and offensive. When the quantity is large, the Uterus acquires a proportionate bulk.

ON THE DECIDUOUS MEMBRANE.

BETWEEN the proper coverings of the Ovum just mentioned, and the uterine surface, another membrane of greater thickness than the preceding, is interposed the membrana decidua: this may properly be considered as the lining of the Uterus. The decidua is only formed by the Uterus under impregnation: its formation commences with conception. At first it is a mere fluid secretion, which afterwards assumes a membranous appearance: it increases in thickness and extension in proportion to the evolution of the Uterus. It is adherent to the inner surface of the Uterus, and is extended over the chorion, to which it is connected by vascular attachment: it is always thrown off after the process of labour, or miscarriage. This membrane is easily separable from a portion of Gravid Uterus out of the body.

OF UTERINE ACTION, OR LABOUR PAINS.

WHEN the Gravid Uterus has reached its achm  of evolution, it commences certain preparations for the

expulsion of its contents ; the first perceptible one is, the subsidence of the uterine tumour from the epigastric to the umbilical region. As a consequence of this change in the relative situation of her burden, the woman feels herself lighter, and is smaller in size. It is occasioned by a slight degree of contractile effort on the part of the Uterus, but which is not at first attended by painful sensation. Sometimes, while it is in progress, slight pains assail the patient in the night-time, which disappear in the day. The mode in which this change is produced, is by no means similar in every woman : it is sometimes rather sudden, taking place in one night, so that in the morning the woman is surprised to find herself so much smaller than she was the day preceding : more frequently the change is gradual, almost imperceptible from day to day ; but after the lapse of several days, it is sufficiently obvious. If the brim of the pelvis be not sufficiently capacious to allow the free admission of the child's head surrounded by the cervix uteri upon this tendency to descent, no alteration in person is visible. When the subsidence is very remarkable, it equally evinces an activity of uterine action, and a roomy pelvis. After a short space of time, the commencement of labour is announced by the painful recurrence of uterine throes ; by a discharge of mucus ; and by a relaxation of parts.

I have already hinted, that the contractile effort of the Uterus, assisted by the diaphragm, and the abdominal muscles, is the active agent in labour. The child, whether it be possessed of life, or be deprived of life, with the other uterine contents, is wholly passive. Two necessary parts of the process are, or

ought to be, progressive at the same time; they should, indeed, keep exact pace with each other; viz. that contractile effort by which expulsion is effected, and that relaxation in the soft parts, which permits the advance of the child. The regular economy of labour is so intimately connected with, and dependent upon, the degree of unison subsisting between them, that if the former be actively excited before the latter is apparent, the labour becomes more painful and protracted, and is even sometimes thrown into irregularity and disorder. In proof, I need only remark, that when the membranes give way early, in a first labour, uterine action is prematurely and powerfully induced, at a time when any advance is prevented by a want of relaxation in the soft parts: then the interval which passes between the discharge of the waters and the conclusion of the labour is truly distressing⁸. The assistance of art, is sometimes called for, to terminate a labour thus protracted by the mere exhaustion of the animal powers, under these premature efforts.

Uterine action, as I have before stated, is involuntary; it is not to be excited at the pleasure of the will: yet the will has a control over certain mus-

8 [We do not regard these as the only causes of the distress occasioned by the too early rupture of the membranes; for much inconvenience and trouble arises from the quality the womb possesses in its healthy condition of accommodating itself to the inequalities of its contents; the child is then unequally embraced, and the uterus may be severely stimulated, if particularly irritable, by its angular projections; but should the uterus not be disposed to contract firmly after the evacuation of the waters, or the uterus be not particularly irritable, the woman may be a long time free from pain; hence, we see the difference between the premature escape of the waters when attended with more or less pain, and where this happens without any. In the one instance the labour may be most painful and protracted, and in the other it may be no more so than ordinary.—AM. ED.]

cles, whose exertions may voluntarily be added or withheld, and which, towards the close of labour, are always added, almost against the power of the will, to the effects of the labour pains. The action of these voluntary muscles, is sometimes prematurely misapplied to the detriment of the patient.

The female attendants upon a woman in labour, generally recommend her *to bear her pains down*; that is, to call into action the voluntary powers of the diaphragm, and of the abdominal muscles, without reference to the period of the labour, or the state of parts when such recommendation is made. If it be early complied with, these voluntary exertions do much injury. They tend to the untimely waste of those powers which ought to be reserved for a future occasion. How much more congenial to Nature's intentions would it be, to request the woman to refrain from any voluntary effort; to abstain from expression of pain, until she finds herself of pure necessity compelled to bear down, and to cry out; the time will come, when she cannot withhold her efforts or expressions.

But though uterine action may not be under the pleasure of the will, it is now and then diminished in vigour, or even sometimes entirely suspended by sudden occurrences, strongly affecting the mind. This interruption is temporary. The activity of the process is resumed after an uncertain interval, and is continued to its completion. The patient is thereby rarely endangered, nor suffers any inconvenience.

An interval of comparative ease succeeds the pain attendant upon each uterine effort, in which there is an absence of action. During the pain, the Ute-

rus feels harder, firmer, and smaller. During the interval of ease, it is softer to the hand, relaxes, enlarges, and resumes nearly the condition it was in previous to the attack of pain: but by repeated returns, the general volume of the Uterus and the capacity of its cavity are diminished, and its contents are compressed.

The contents of the Uterus being expelled, a temporary thickening of its parietes is produced by contraction, by which the diameters of its several blood vessels are diminished, and by which their extremities are closed.

Labour pains are merely the external evidences of the agency of that uterine power by which contraction is produced. We have a temporary, and we have a more permanent state of contraction. The temporary state takes place on every accession of uterine action: the permanent state is the result of the repeated returns of the former⁹; and, when

9 [We are sorry to differ with our author upon this subject or any other of which he treats, but as our views are different, we shall express them, in as few words as possible, without insisting however that we are right beyond dispute, though we feel a strong belief that we are so. We should say that precisely the reverse obtains to what is stated by Dr. R. We think we have sufficient ground to declare, that the alternate contractions never take place without the uterus possess the capacity for, or actually being in a state of more or less permanency of contraction—our reasons for this opinion are, 1. That in cases of atony of the uterus, which is merely an expression signifying the absence of the permanent contraction, (the tonic contraction of Baudelocque, &c.) the painful alternate contraction never is present. 2. But so soon as this takes place, either by the inherent powers of the uterus itself spontaneously exerted, (if so it may be termed) or mechanically induced by the accoucheur, then is the uterus, and not until then, liable to painful or alternate contraction; hence, so long as the uterus remains uncontracted by its tonic powers, the woman remains free from after pains, as they are termed; but so soon as the uterus gathers itself up into a mass of more or less firmness, then these pains may take place. 3. We see this permanent condition take place after the expulsion of the uterine contents, without the intervention of the “tem-

produced, does not admit of relaxation¹⁰. After the expulsion of the uterine contents, contraction progressively proceeds, till the Uterus acquires its smallest size. This subject will be afterwards noticed.

porary contraction," consequently cannot be "the result of its repeated returns."—AM. ED.]

10 [We have the authority of Baudelocque, Le Roux, &c. beside our own experience, to the contrary of this.—AM. ED.]

ON
NATURAL LABOUR.*

NATURAL LABOUR implies the most simple and common state of the act of child-birth : the term is more particularly used with reference to the situation of the child. In natural labour, the head of the child is presumed to be the presenting part, and the process to be regularly and gradually progressive, until completed by the efforts of the mother, without the interference of art, or without the intervention of any untoward occurrence.

The obvious commencement of the process is preceded by those silent preparations which have been before hinted at, and which indicate its approach. It is at length characterized by the recurrence of pain, with intervals of ease. The degree of pain is, in the first instance, trifling ; but, as the process advances, it is increased. The pain is usually referred to the lower part of the back, or the circumference of the abdomen ; and sometimes it shoots down the thighs. If there be any expression of this

pain at the beginning of labour, it partakes rather of the nature of a moan, than of that anguish attendant on an expulsive effort. After the establishment and continuance of uterine contraction for some time, the intervals of ease become shorter ; the uterine orifice and the Vagina shew a disposition to relax, and to give way ; a discharge of mucus ensues, and some portion of the uterine contents begins to be protruded through the relaxing orifice, in the form of a soft membranous bag, which, during the presence of uterine action, becomes tense ; in its absence, it is found to be quite flaccid. This protruded portion, on every return of uterine contraction, mechanically distends the os uteri, and assists its further dilatation, as well as that of the Vagina, by increase in size and by pressure ; particularly if these parts have assumed a disposition to give way, so as to permit its ready advance. If an examination be now carefully made, in the absence of uterine contraction, some part of the head of the child may be felt through the flaccid membranes ; probably at the brim of the pelvis, or just entering it. After a farther lapse of time, and the regular continuance of uterine action, the protruded portion of the membranes gives way from increase of pressure, and the waters are discharged partially or entirely ; the head of the child then descends upon the uterine orifice, and is pushed lower into the Vagina. There is now commonly a slightly coloured discharge. The pressure of the head on the soft parts proves an increased stimulus to uterine action, and expulsive efforts are induced : the Uterus, now strongly and more immediately contracting upon the breech and body of the

child, is assisted in its powerful action by the voluntary exertions of the abdominal muscles, and of the diaphragm, sympathetically excited ; so that on each return of uterine action, the woman is almost involuntarily compelled to strain, to bear down, and to retain her breath, with an expression of anguish. If, at this time, the uterine orifice and the Vagina have assumed a proper degree of relaxation ; if they do not offer much resistance ; the head, after a few more successive strains, is found to be vastly extending the perinæum, the anus, and the external parts, and the vertex is soon observed to be making its appearance externally. The sense of pressure on these parts, now produces an increased degree of both voluntary and involuntary expulsive effort, so that the head is at length gently and gradually protruded, under much suffering. A somewhat longer interval of ease at the present succeeds the preceding acute sensations. On the return of uterine action, the shoulders are expelled by similar efforts, and with similar sensations ; and afterwards the body, the breech, and the legs of the child.

During the passage of the head through the pelvis, and particularly previous to its exit, certain changes are naturally effected in its relative position, with respect to the neighbouring parts ; to which it is necessary now to attend. At the beginning of labour, the head is usually found at the brim of the pelvis, with one ear towards the pubis, or diagonally with the occiput to one of the groins : in this manner it enters the pelvis, and descends with the occiput under the foramen thyroideum, with an ear on the right or left of the pubis, until the vertex is on a

level with the tuberosity of the ischium. Meeting now with resistance to its farther advance in that direction by the ischial and sacral bones, and soft parts; the occiput is gradually and effectually inclined into that space, in which a less degree of resistance is offered, that is, under the arch of the pubis, whilst the face occupies the hollow of the sacrum. When this change of position, termed the *turn* of the head, is completed, the emerging vertex is more and more protruded through the external parts, and the head is expelled, with each ear directed to the side of the outlet of the pelvis, with the occiput under the pubis, and the forehead and face passing over the internal surface of the perinæum.

After the exit of the head, another relative change is effected with respect to the shoulders and body of the child. When the head is in the above situation, each shoulder is directed to the side of the pelvis; but on the return of the next expulsive effort, the shoulder is found to have turned spontaneously somewhat under the arch of the pubis; and the body of the child is expelled with its side more inclined to the arch of the pubis, than the back or belly.

If the forehead be found in the place above described, as the usual situation of the occiput, it is propelled downward in the same direction, and it makes a similar turn under the arch of the pubis; the head is then expelled with the face towards the pubis, and with the occiput directed into the hollow of the sacrum.

The principal points of professional duty, during the passage of the head and shoulders through the

external parts, consists rather in protecting them from injury, bruise, or laceration, than in hastening the exit of the child by extraction. Indeed, the more gradually and slowly the body and limbs of the child are expelled after the passage of the head, the more perfectly does the Uterus contract, and the smaller and firmer does its volume become, during, and after the expulsion.

The best mode of effecting the above objects, is so thoroughly explained by every teacher of midwifery, as is also the intention of those common attentions paid to the new-born babe, and to the mother, that it is needless, in this place, even to mention them.

Throughout the course and management of a common natural labour, the assistance of the accoucheur is seldom wanted till the expulsion of the child is at hand: he has merely to superintend the process; to see that all the natural changes are duly and timely performed; and to provide against any avoidable injury which neglect might occasion. By untimely and officious interference, the whole process is frequently thrown into derangement and confusion: the use of instrumental means towards its close is thus made necessary to the welfare of the mother; whereas, in all probability, a different line of conduct would have insured a safe natural termination.

During the progress of a common natural labour, various inconveniences, the result of idiosyncrasy, of sympathy, or of pressure, will occasionally be met with; such as rigors, nausea, the rejection of fluids taken into the stomach, determination of blood to

the head, repeated inclinations to empty the bladder and rectum, and others of a similar nature: these, however, prove merely temporary, and being connected with the process as a cause, subside upon its completion.

While the birth is going on, after the head has made its exit, it sometimes happens, that an unusual intermission of the uterine effort takes place, during which the woman complains of the inconvenience produced by the pressure of the child upon her parts, and by their extension: a similar occurrence is not uncommon after the shoulders and part of the body have been protruded. However long this intermission may prove, and it rarely exceeds a quarter of an hour, it is more advisable passively to wait the return of action, for the expulsion of the remainder of the child, than to use extraction in its absence. It is ever better for the woman that the child should be entirely expelled, than even partly extracted. A sense of smarting remains for some time upon the parts.

As the head is advancing through a well formed pelvis, it retreats under the absence of pain, and on its return is again pushed down: even just before the exit of the head, the sense of distension is diminished on the remission of pain.

ON THE GENERAL MANAGEMENT OF THE PLACENTA.

THIS is a practical subject, which involves matters of far more vital importance to a parturient woman, than the simple exclusion of the child. It is a melancholy truth, but the fact is too certain, that

the life of every woman, under the act of child-birth, is necessarily exposed to some degree of risk.

This risk is not caused simply by the agonizing pangs the woman may have suffered, or by the violence of the exertions she may have been compelled to make under the act: it arises solely in the nature of that connexion, which Providence has established between the mother and the child in the construction, and in the mode of attachment of the Placenta.

It, indeed, sometimes happens, after the kindest, and apparently safest labour, (as far as the birth of the child is concerned) after, perhaps, some of the domestics, elated with momentary joy at the happy event, have officiously hastened to inform the anxious and expectant husband that the child is born, and that *all* is safe; even under such flattering appearances, it sometimes happens, I say, that in the interval between the birth of the child and the removal of the Placenta, the mother is placed under symptoms of the most immediate danger, by a sudden loss of blood from the uterine vessels, from which she can only be rescued by the judicious conduct of her accoucheur: without his prompt assistance, it is highly probable that her life, however valuable, would be forfeited to the natural act of child-bearing. But brute animals are happily exempted from this source of danger by the difference in the structure and in the mode of attachment of their Placenta.

There is every variety in the relative situation of different women, and even in that of the same woman at different times of confinement, as to the state in which the Placenta is found: so that it must be almost impossible to lay down such definite and de-

terminate rules of proceeding, with respect to its management, as may be suited to every particular case. Yet some general principles may prove useful; but in their application, much latitude must be ever allowed for the exertion of individual judgment and discretion. If erroneous notions of the subject be early imbibed, from whatever source they may be derived, their baneful impressions are not easily eradicated; they seldom fail to exert their injurious effects upon the judgment for a length of time, until indeed they are corrected by the practical evidence of their injurious tendency, or by a more perfect knowledge of those provisions, by which this mass is, in the first instance, detached from the uterine surface, and is afterwards excluded the cavity.

After the separation of the child, the hand of the accoucheur must be applied upon the lower part of the abdomen, with the intention of ascertaining the state of the Uterus, and the degree of contraction it has already taken upon itself; for every other consideration is now of minor importance, in comparison with uterine contraction. This simple proceeding, then, ought never to be omitted¹¹: it enables us to judge of the probable safety of the patient, and to give those satisfactory assurances which ever prove so pleasing: it warns us of threatened mischief, and empowers us to take timely steps to avert it; it is the surest test of the presence of a second child. By the state in which the uterine tumour is found by the hand, must the practice be regulated.

11 [We cannot too forcibly inculcate this direction—it should never be omitted.—AM. ED.]

In the majority of instances, that contractile effort which expels the breech and legs of the child, (especially if no extraction has been used at the moment,) also detaches the Placenta from its uterine connexion, either leaving it loose in the cavity, or protruding it into the Vagina. But this desirable occurrence may not immediately take place; in the absence of contractile effort, or upon its exertion in a slighter degree, the Placenta may *not* be detached, or may *not* be protruded. Let us, therefore, here pause, and enquire in what manner, and by what means, the placental separation and exclusion are naturally effected.

At the full evolution of the Uterus, and previous to the commencement of labour, the Placenta occupies an internal space equal to its own diameter and dimensions; but after the expulsion of the child, the general volume of the parietes of the Uterus, and the capacity of its cavity, being each diminished in proportion to the degree of contraction it has undergone, the uterine space before occupied by the Placenta is now proportionally lessened, and shrinks into a less surface: the Placenta therefore loses its former hold: it spontaneously falls off, as it were, from its preceding attachment, by the shrinking, or contraction, of the uterine parietes from beneath it; and its separation is attended with a moderate discharge of blood.

This natural separation may be hindered by an absence of contraction, or obstructed by a morbid adherence of the placental surface to the uterine surface. In the case of twins, however, as the Uterus has not the power of contracting itself completely, till after the

expulsion of the second child, the Placenta belonging to the first child is rarely so far separated, as to be found in the Vagina, till after that event. The Placenta does not possess any active means within itself, nor can it shrink into a less compass: it remains an inert mass during the contractile efforts of the Uterus. It is indeed contracted upon, and thrown off by the uterine parietes, but it cannot lessen its dimensions by any power inherent within its own structure¹². Such being the case, under a perfect and healthy state of uterine action, the Placenta is separated from the surface it had previously occupied by the shrinking of the uterine volume, and a continuance or repetition of contraction excludes it. Under an imperfect state of uterine action, or under diseased adhesion, it remains within the Uterus, or attached to its original surface.

That power, which is so favourable to the separation and exclusion of the Placenta, also prevents the loss of a larger quantity of blood from the open extremities of those uterine vessels which did pass into the maternal portion of the mass, than is consistent with the woman's welfare. This effect is produced by a closure of their apertures, and by a degree of constriction throughout their entire structure, by the contracting Uterus. These enlarged vessels do not seem to possess an equal share of contractile effort

12 [This must be taken with some limitation; for, if the cord be suffered to bleed after it has been cut, it will evacuate sometimes a considerable quantity of blood, and this will have a two-fold operation—1st. By this the size of the placenta will be diminished in proportion to the discharge of blood, therefore may be said to contract; and, 2dly, This contraction will stimulate the uterus, and urge it more powerfully to the expulsion of this mass, so that both reason and experience shew the propriety of putting but one ligature upon the cord, when it is a simple pregnancy.—AM. ED.]

in themselves and of themselves, as blood-vessels of other parts of the body ; they are indebted for that salutary property to constriction of their several parts by the lessened Uterus : they cannot so far contract their own parietes, diminish their general diameters, and close their orifices, as to prevent the escape of their contents, without its assistance.

The more perfect in degree, therefore, the general state of uterine contraction is found under the hand, immediately after the expulsion of the child, the less will be the chance of hæmorrhage : the more imperfect in degree, the greater will be the danger of hæmorrhage.

From this view of the mode in which the separation of the Placenta is produced, and of the means which the natural powers usually apply to this important purpose, it is obvious, that to a perfect state of uterine contraction, and to that alone, must we refer for security, during, and after, the act of labour. It not only forwards and completes the grand changes which occur during the process, but it also prevents or lessens the dangers to which every woman is exposed under the act of child-birth. The means of art ought, therefore, to be particularly directed to the production of this perfect state of contraction, when it is left imperfect by the natural powers.

The application of the hand, at the lower part of the abdomen, as before directed, with a slight degree of grasping pressure, immediately detects the state of the Uterus at the moment ; and should be resorted to before any attempt be made to remove the Placenta, or even before an examination be commenced with that intention. If the Uterus be now

found low in the abdomen, or in the pelvis ; if it be firm, well contracted, and small in bulk, the safety of the woman is pretty well assured. If, on the contrary, the Uterus remain high ; if it be flaccid, ill-contracted, and large in size, without the presence of a second child, some threatening of mischief attaches to such symptoms, of which the accoucheur is warned. He is therefore prepared to take timely steps to avert the danger, and to act with promptness and energy, if necessary : or he is cautioned to adopt such intermediate measures, as the preservation of his character, and the ultimate safety of the patient, may demand.

After this satisfactory information is obtained, an examination *per vaginam*, is presently to be made, for the sake of enquiring in what manner the Placenta is disposed of. If the mass be found by the finger protruded down into the Vagina ; if the insertion of the Funis into its substance can be readily and distinctly felt ; if the finger can trace the boundaries of the mass ; if, at the same time, the Uterus be firm and small ; little doubt can remain of the complete detachment of the Placenta, and of its exclusion. In such a case, it may be withdrawn at pleasure by the Funis¹³.

But though the Placenta may thus be withdrawn at pleasure, it may be a question of policy, whether it ought to be withdrawn *immediately*. On this

13 [We should recommend these important distinctions to the young and inexperienced practitioner ; and beg him, from the commencement of obstetrical practice, to acquire as early as possible a *habit of routine*, which is in this instance considered so highly important—there is no superfluous expression here—every sentence is an important aphorism.—AM. ED.]

point, different practitioners vary in their sentiments, and accordingly pursue different modes of practice. I am ready to grant that, under the favourable appearances above stated, the Placenta, in the majority of instances, may be immediately withdrawn, without any apparent detriment to the patient ; nay, we uniformly find in practice, that the sooner it is removed, the better pleased are the patient, and her friends ; nevertheless, I have my doubts of its propriety, without uterine action, and I generally wait its return before I finally remove the Placenta, that I may take advantage of its assistance.

To allow the Placenta to remain in the Vagina for a short space of time, can, at least, do no harm : its presence appears rather advantageous than detrimental, by inducing a return of that salutary effort, and by furthering those silent changes already in progress. The habit of hurrying the removal of the Placenta, under all cases, cannot be too much deprecated. I offer no limit as to time ; that must be regulated by the occurrences of each case, and the judgment of the accoucheur¹⁴.

¹⁴ [We have uniformly made it a rule, without ever experiencing the *slightest* disadvantage from it, to withdraw the placenta immediately, whenever it has escaped from the uterine cavity, and is found loose in the vagina. We indeed consider a propriety in this, for the following reasons—1st. If it be protruded from the uterus, it can have no action upon the viscera after it is expelled from it, therefore cannot contribute to its further contractions, consequently cannot prevent a flooding from coming on. 2dly. If there be a flooding, (which, by the by, will be found a very rare occurrence under this circumstance, as it manifests a healthy condition of the uterus,) the sooner it be removed the better, as it will serve as a kind of dam to the blood poured out by the uterine vessels, and cause this viscera to be distended, and thus counteract its tendency to contraction, or lull us into a belief that there is little or no flooding present, because it is not apparent.—A.M. Ed.]

But the Placenta may be separated from its uterine attachment, yet may not be excluded the cavity ; it may remain loose and detached within the Uterus. The uterine tumour, in such case, is felt above the pelvis ; it occupies a considerable portion of the abdominal cavity ; it possesses a greater volume and less solidity than when it does not contain the Placenta.

This state of Uterus is generally produced by the manual extraction of the body and lower parts of the child, during the absence of the uterine effort, after the head and shoulders are protruded. Instead of passively waiting for the active expulsion of these parts, as before recommended, the operator drags them away suddenly, and, as it were, by main force.

The Uterus is therefore left under a state of imperfect, or of irregular contraction. The difference between the natural expulsion of the abovementioned parts, and the forcible extraction of them, with the effects thereby produced on the uterine tumour, and on the separation and exclusion of the Placenta, must be too obvious to every practitioner, to need illustration or comment. If, in this case, the Placenta have fallen down by its own weight, and be placed at the lower part of the Uterus, the insertion of the Funis may possibly, by a little management, be touched ; but frequently it cannot be felt ; the Funis seems to be lost within the Uterus, and the finger is unable to reach the general mass.

Under this disposition of the Placenta, presuming there is no appearance of any untoward symptom, it may safely be left, for some time at least, in the hope of its being excluded by a return of uterine contraction. In the interval, the occasional pressure

of the hand may be usefully employed, which assists and excites this return. No limit as to the *time when* the Placenta ought to be extracted, can, in this case, be precisely fixed ; but, in the interval, I would offer a caution against repeated pulls at the cord : most probably the mass will by and by descend, when it may be extracted as before directed : even if it do not, extractive means may be deferred as long as it seems consistent with professional duty so to do, or the clamours of the attendants will permit.

As a general principle, then, it is desirable to wait patiently and quietly the return of uterine action, for the exclusion of the Placenta, till either lapse of time, or other occurrence prompts its removal. When the removal is determined upon, the particular mode must be regulated by the circumstances of each case. After a long protracted labour, in which the strength has been much exhausted, and in some cases of artificial delivery, an earlier extraction of the Placenta may be more frequently called for, than in common instances.

The time which thus elapses between the birth of the child and the extraction of the Placenta, is an interval of uncertainty to the patient, and of anxious suspense to the accoucheur ; especially when he is ignorant of the mode in which the Placenta may be disposed of in the Uterus. When that time is prolonged to an unusual period, a want of confidence is excited in the patient, and a distrust in the general management of the case arises in the minds of her friends, which require no trifling exertion of firmness to counteract and defeat. Whether it may become necessary to introduce the hand to separate, and

withdraw the mass, or whether it may be naturally thrown down, are questions which cannot, at the present, be satisfactorily answered ; the accoucheur is therefore not at liberty to make those consolatory assurances of the safety of his patient, which are so anxiously expected ; yet he ought not to excite unnecessary alarm by the careless expression of his fears ; he will have to exercise much caution and reserve in his replies to enquiries, which should be conveyed in a tone of hope and confidence, rather than of despair. But whatever may be his sentiments respecting her state, it is a matter of no little importance, that he do not betray visible marks of alarm in the lying-in room : they seldom fail to make a desponding impression on all parties.

It usually happens, in the case now mentioned, that, after the lapse of a moderate space of time, the Uterus resumes a slight degree of action ; it is observed to lower, to become firmer, and to lessen in bulk ; the Placenta is felt coming within reach, and by and by descends. Under this state of things, there can be still no necessity for hurrying the extraction. The more completely the Uterus throws off and excludes the Placenta, by its own contractile effort, in the safer condition is the woman finally left. Previous to the return of uterine action, I must repeat the caution against pulling at the Funis, a practice which, I fear, is but too prevalent ; I allude to the usual mode of twisting the Funis round the finger, bringing it to its bearing, and applying a degree of extractive purchase through its means. This is done for the purpose of exciting uterine action, when it is dormant, or of separating the Placenta when adhe-

rent ; but it is always a very doubtful, and even a very dangerous expedient. The attempt to withdraw the Placenta by force, by the Funis, as long as it is out of the reach of the finger, as long as it is entirely enclosed within the uterine cavity, is at least premature and injudicious ; and may prove seriously injurious. Indeed, the repeated teasing of the Funis, is in itself not devoid of mischief. If the Placenta should prove to be morbidly adherent to the uterine surface, this practice may separate a portion of it, and induce a sudden access of hæmorrhage : or it may endanger a disruption of the mass, with the risk of some portion being left behind ; or it may produce actual inversion of the Uterus ; or, whether the Placenta be adherent, or retained by irregular contraction, it may break off the Funis, and drive us to the necessity of introducing the hand for its final removal.

It is impossible to describe the degree of force which may be applied to any given Funis, without fear of any of these accidents ; that must be regulated by the thickness of the Funis, and by judgment acquired by practice. But when, in the attempt to withdraw the Placenta by the Funis, we meet with much resistance ; when it seems to be retracted, as soon as the extractive power is withheld ; when the mass does not kindly descend, upon the application of the customary degree, we ought, for the present at least, to desist from any farther attempt at extraction by its means.

The introduction of the hand into the Uterus, after the birth of the child, is, to use the mildest language, a harsh and severe measure ; it always gives con-

siderable pain, and it cannot be practised with impunity ; without some risk, present or future.

In the introduction of the hand, therefore, we ought not to be actuated by trifling motives, nor ought it to be resorted to on slight occasions ; it ought merely to be considered in the light of a necessary evil, which prevents greater danger or inconvenience than it incurs. [Yet, however harsh and severe in reality may be the introduction of the hand, however painful at the moment, and however hazardous its consequences, the removal of the Placenta by its means, when adherent or retained, (the necessity of that removal being established,) is certainly preferable to the uncertain, nay dangerous, mode of pulling at the Funis: it is the less of two evils.]

But let us suppose that the Placenta still remains entirely within the uterine cavity ; that there is no tendency to a return of uterine action ; that the uterine tumour continues high, large, and flaccid ; what length of time are we justly authorized to wait, before some decisive steps are taken for its removal out of the Uterus ?

The answer to this question involves many serious considerations. We are still presumed to be in utter ignorance of the precise mode in which the Placenta is disposed of : it may be adherent partially or more generally to the uterine surface, or it may be merely retained after its separation. In whatever state it may be found, we ought, for the present, to desist from active means, till more positive information is obtained respecting it, or till lapse of time, or some threatening symptom more immediately determines the conduct. As long as there is no hæmorrhage

or other appearance of danger, it is matter of little moment in itself, whether the Placenta be allowed to remain two hours, or for a more indefinite time, within the uterine cavity ; but, inasmuch as this interval is one of anxious suspense to all parties concerned ; inasmuch as the present received opinion is, that the Placenta ought not to be suffered to remain an unlimited length of time in the Uterus without removal ; inasmuch as the character of the accoucheur is exposed to the unfavourable comments of all to whom the affair is communicated, when he thus ventures to leave it ; inasmuch as his constant presence is necessary, his patience exercised, and his time consumed, till it be removed ; and lastly, inasmuch as a time must come, when the Placenta must be removed by art, under, perhaps, increased difficulty and danger, unless it be thrown off ; such considerations have warranted the practice of a timely removal by the hand.

The Placenta cannot be left in the Uterus for an unlimited length of time, without danger ; fatal consequences have occasionally ensued from the practice ; and the doctrine on which the practice was founded is now justly exploded. Besides, cases are not unfrequently met with, in which such an unnatural or morbid adhesion exists between the placental and the uterine surfaces, that the natural separation and exclusion are quite impossible. Add, also, that after the expulsion of the child, the Placenta becomes a lifeless and an useless mass : that it is deprived of those means by which its structure and organization were supported ; that it is subjected to all the laws of dead animal matter, and, from its

composition and situation, readily passes into a state of putrefaction. Such being always the case, there cannot be a question, whether such a mass should be carefully and timely removed, or whether it should be allowed to remain in the Uterus, to undergo these processes, with the risk of their consequences.

But we have, as yet, arrived at no conclusion as to the *time when* the Placenta ought to be removed by art; when the natural powers fail to separate and to exclude it. I am ready to acknowledge, that there is great difficulty in fixing the precise time for acting. On this important point, the accoucheur must rather be guided by the respective circumstances of the case as they arise; by the general state of the patient; by the feel of the uterine tumour; by the quantity of sanguineous discharge, and its effects; and by the nature and length of the preceding labour, than by simple attention to lapse of time.

It will rarely be necessary to exceed two hours, before recourse be had to this proceeding: more frequently its necessity will be obvious before the expiration of this time: indeed, I think, on an average of cases, it will be found that, if the Placenta be not thrown off within one hour from the birth of the child, it is detained by some unusual cause. If haemorrhage, or other pressing symptoms, suddenly intervene, an earlier removal will be required; otherwise every thing like hurry or haste ought carefully to be avoided.

The propriety of the removal of the Placenta, by the introduction of the hand, being established by the acknowledged necessity of the case, certain preparations are required for its more safe and ready

performance. These preparations may seem formidable to the patient, and may convey the impression that her life is in danger ; they ought, therefore, to be made silently and cautiously : they are, nevertheless, needful to the accomplishment of the object in view, with a greater degree of ease to the operator, and of safety to his patient. And surely, the chance of exciting a slight alarm in a timid mind, is not to be put in comparison with the risk of incurring an increased state of danger, or of giving unnecessary pain by a failure in the attempt. I have more than once known an attempt to remove a Placenta from the uterine cavity foiled, by omitting to take off a coat, or to bare an arm ; or by the accoucheur neglecting to place himself or his patient in the most favorable position ; when, having partially introduced his hand into the Uterus without such precautions, he has been obliged to withdraw it, to rectify his omission or neglect.

The friends of the patient, and even the patient herself, should also, in most instances, be apprized of the intended operation, that their complete sanction and permission may be obtained : unless this be done, a mysterious secrecy hangs over the case, which leaves room for unfavorable imputations. Besides, the patient may, by resistance, materially defeat the intentions of the accoucheur. When the state of the case has been properly explained, I have seldom met with objection from any parties to the necessary means.

The patient is to be placed on her left side, with her knees bent up towards the belly, and with her nates at the edge of the bed : the accoucheur, seating himself on a low chair, or kneeling on the floor,

gradually and cautiously introduces his left hand, formed into a proper shape, and previously besmeared with pomatum or lard, into the Vagina, and thence into the Uterus, gently dilating and distending those parts in its passage. Now, having accomplished the first part of the operation, by the introduction of the hand, the nature of the case will be known, by which the future conduct of the hand within the Uterus must be regulated ; if, at this time, the Funis be gently brought to its bearing by the right hand, so as to act slightly on the Placenta, the mode in which that mass is disposed of in the Uterus will be the more readily determined. During the introduction of the left hand, the application of the right hand externally on the uterine tumour, with a degree of grasping compression, may be advantageously made.

If the Placenta be now found partially or more generally adherent to the uterine surface, a loosened portion is to be sought for, and the fingers being cautiously insinuated between it and the Uterus, a further separation is gradually, and carefully, to be made by a lateral or other motion of the hand, till the whole mass be within its grasp, when it is to be slowly extracted. While the left hand is thus occupied within the Uterus, its action is much assisted by the external grasp of the right hand, as abovementioned : it steadies the Uterus, and prevents that rolling motion, which considerably baffles manual separation. Much difficulty is sometimes experienced in the separation of an adherent Placenta, by the strong contraction of the Uterus on the hand, and by its rolling about in a singular manner ; the above expedient obviates that inconvenience.

If the Placenta be retained by irregular contraction of the uterine parietes, whether it be of the longitudinal description, termed the hour-glass contraction, or globe-like, the contracted part is to be slowly and cautiously dilated, and distended by the hand, till the general mass of the Placenta can be enclosed within its grasp, when it may be gradually withdrawn.

If the Placenta be found detached from the uterine surface, and be merely retained from the want, or absence, of the contractile effort, the stimulus of the hand within the Uterus usually induces a return of active contraction, so that the hand, with the Placenta within it, seems almost to be expelled ; should this not be the case, a very slight degree of extractile power will be sufficient to withdraw it. This state of Uterus is frequently met with after operative midwifery : after the birth of a still-born child : in those instances in which the uterine efforts have been much exhausted previous to the birth of the child : and in those in which the child has been extracted during the birth, instead of being allowed to be expelled.

In every instance, after the manual extraction of the Placenta, before the patient be finally left, the hand should once more be applied upon the Abdomen, that the state of the Uterus, as to the degree of contraction it has acquired, may be now ascertained. The mind is thus satisfied of present safety, or warned of future danger.

ON THE OCCURRENCES AFTER DELIVERY.

Now that the process of labour is completed, by the Placenta being withdrawn, let us consider the present situation of the woman, and look at the changes which have already taken place, as well as those which are still in progress.

Three obvious occurrences prominently and immediately arrest the attention ; the diminution of the uterine tumour, the abstraction of pressure from the contents of the Abdomen, and the removal of distension. The Uterus is now small, in comparison with its former size, yet it remains large in proportion to that which it is afterwards doomed to assume ; it is pear-like in shape, and thicker in substance ; its Fundus is felt at the brim of the pelvis, giving a solid resistance to the hand ; and its general bulk is variable ; even in the same woman in different labours. A contractile effort is continued, which produces from day to day a still more perceptible diminution, and proceeds till the Uterus has acquired its pristine size. Along with the contractile effort, we have a material abstraction of the vascular supply. By the assistance of these agencies, the Uterus is at length restored to a state, under which it is again capable of impregnation. Absorption has little to do in this part of the process.

This contractile effort is, soon after delivery, and indeed for the first few days, attended with pain, which returns at long intervals, but gradually sub-

sides ; it is afterwards performed in so silent a manner, that the patient is ignorant of its progress. These pains are called the **AFTER-PAINS**.

After-pains are more usually met with in women, who have had many children, than after a first labour ; they are also troublesome after the introduction of the hand for the removal of the Placenta. They are submitted to with less patience than the labour pains ; either because they are not expected, or because they deprive the woman of refreshing sleep. They seem to prolong the sufferings of a lying-in woman, yet they produce the most salutary effects. She undergoes a temporary inconvenience, for permanent benefit.

These pains are sometimes increased by a retention of a portion of the membranes, and frequently by a coagulum collected within the Uterus, which mechanically distends and excites it to contraction : when it is expelled, the pains diminish in violence, or cease altogether.

The After-pains are merely a test, then, of the continuance of contraction, which furthers the natural operations connected with labour : any attempt to check them would counteract these operations, and would incur certain mischiefs. As they are fraught with positive advantages, they are to be patiently dispensed with, in the hope that they will shortly disappear¹⁵. Some relief, when they are vio-

15 [We cannot accede to this doctrine, for agreeably to our observation it does not accord with the just rationale of these pains ; and, besides, it deprives the woman of the benefit of those aids which are calculated to solace and comfort her. We have been in the constant practice for more than thirty years of mitigating these pains as speedily as possible, and without in a single instance having observed the smallest evil to arise from it. We consider after-

lent, may be obtained by the repeated exhibition of small doses of a narcotic, at short intervals; but such a dose ought not to be given, as can in any wise interfere with uterine contraction. It is to be merely palliative. When the after-pains continue distressing, beyond the second day after delivery, an active purgative produces almost certain relief.

After-pains seldom produce febrile symptoms, even when excessive. If febrile symptoms, accompanied with local pain, do, early after delivery, make their appearance, the cause is more deep-seated than meets the eye: they are either connected with a loaded state of the uterine vessels, or with inflammatory action.

When the Uterus continues for some days much increased in size, without the exertion of contractile effort; when its vessels are distended with blood, and there is a sparingness or entire disappearance of lochial discharge, a degree of tenderness is felt

pains as arising from some foreign body within the cavity of the uterus, (for a coagulum must be regarded as such) which requires the intervention of the alternate contractions to remove; and coagula are formed because the tonic contraction of the uterus is imperfectly performed—hence, in general, the greater number of children a woman may have, the more obnoxious is she to after-pains; and hence it is comparatively of rare occurrence with a first child; because this function of contraction would seem to be less perfectly performed, in proportion to the frequency of obligation to perform it. After-pains finely illustrate what we have already suggested, that *pain* is not an essential or a *sine qua non* to human parturition; or, in other words, that it is a modified or diseased condition of the alternate or temporary contraction of the uterus; for this contraction takes place with more certainty and success in those cases which are exempt from them—this is proved by the lochia being less abundant where after-pains do not occur; a certain evidence of a firmer and more perfect contraction of the uterine parietes. In giving medicine then to mitigate the torture of after-pains, we only suspend the painful consequence of the temporary contractions, and by no means impair the contraction itself—to withhold this aid, is to allow the patient to suffer unnecessarily.—*Am. Ed.*]

in the uterine tumour, especially on pressure, which presently advances to a state of continued pain, and its effects are soon transferred to the general system ; we have then the appearance of symptoms of febrile irritation : if they be not early attended to ; if they be not speedily relieved, by general or local bleeding, and by free intestinal evacuations, the mischief rapidly increases, and the life of the patient is soon at issue¹⁶.

Another consequence of the regular diminution of the uterine tumour is met with, in the temporary drain of a sanguineous fluid from those uterine vessels, which, before delivery, had a free communication with the placental cells. To this discharge, the name of **LOCHIA** is given ; which, in a healthy state at least, is free from unpleasant smell. It is at the first purely sanguineous ; but afterwards becomes

16 [It might be a subject of curious investigation to inquire into the cause of the “ sparingness or entire disappearance of lochial discharge,” under the circumstance “ of the uterus continuing for some days much increased in size, without the exertion of contractile effort, and when its vessels are distended with blood.” We, as well as our author, suppose that the discharge consequent upon the separation of the placenta is arrested, and finally interrupted, but by the tonic contraction of the uterus—now, how are we to account for the lochial discharge being sparing or suspended when there is no “ contractile effort ?” The fact is certain as regards the condition of the discharge, but is the situation of the uterus precisely as stated ?—There is much room to doubt this—1st. Because the uterus may be increased in size from an engorgement of its vessels; for if it were not contracted, what is to prevent flooding. 2dly. Because this engorged state may be a cause or a consequence of inflammation, without calling in the aid of a want of “ contractile effort.” 3dly. Because the remedies proposed, and proper, are those calculated to relieve inflammation or engorgement, and not those adapted to promote or induce contraction. Is it not probable then, that the diminution or suspension of the lochia may be occasioned by the internal surface of the uterus throwing out coagulable lymph, and thus blocking up in part or entirely the mouths of the bleeding vessels ? and is this conjecture not strengthened by the complexion and consistence of the discharge upon its increase or reappearance, being more tenaceous and less florid than ordinary ?—AM. ED.]

less so, and, at length, entirely serous. The uterine vessels, even under their most contracted state, after delivery, are more or less gorged with blood, and have their diameters left under enlargement. This blood is gradually squeezed out by contraction: in proportion to the perfection or deficiency of this act is the quantity of the lochial discharge, at present, or in future, small or large. If the Uterus contract well, the immediate discharge is moderate, and is continued in a smaller quantity for a shorter time: if the Uterus remain extended, the discharge is, for the present, increased; and is continued in larger quantity for a longer time. For some hours after delivery it drains away slowly in a fluid state; or, being retained in the Uterus or Vagina, it coagulates, and is expelled by contraction, or escapes in a solid form on change of posture. In general, the loss takes place in so gradual a manner, as to produce little sensible effect on the constitution. In a few days the discharge becomes thinner and serous, yet it is still somewhat coloured; it has now a faintish smell; by and by it is divested of its red colour, and after three or four weeks it entirely ceases. A florid return sometimes occurs upon any extraordinary exertion, and occasionally without any apparent cause, even when it seems to have almost ceased. This return merely shews, that there is a temporary cessation of contraction, and that the uterine vessels continue enlarged in diameter: but sometimes their extremities are forced by active means, especially after miscarriage. Under local or general derangement, the lochial discharge is either interrupted, or is altered in quality or appearance; and in some

diseases it becomes so offensive, as to make the lying-in room disagreeable.

The sudden disappearance of this discharge within a few days after delivery, with an enlarged Uterus, is usually a prelude to dangerous disease, with febrile symptoms. It is not to be supposed that this state produces these symptoms ; it is the mere indication of the accession of disease, of which such symptoms are the necessary attendants. We, therefore, pay little attention to the present interruption of the lochial discharge, except as a symptom, and use no specific means for restoring it, or for obviating its supposed bad effects : we apply our endeavours to the removal, or relief of that cause by which the temporary interruption is produced¹⁷.

The abstraction of pressure seldom produces much obvious inconvenience in the functions of the viscera of the abdomen and chest ; yet now and then it is sensibly felt. The stomach, the liver, the small and the large intestines, with their appendages the omentum and mesentery, and even the viscera of the chest, have been annoyed by the pressure of the enlarging Uterus for some months past ; but this pressure has been so gradually progressive, that the parts have become accustomed to it. When the uterine contents are expelled, this pressure is suddenly removed ; all these parts are placed in a new relative situation, and they are called upon to continue their functions when it is taken away.

The removal of distension from the abdominal parietes leaves them loose and flaccid ; they do not

17 [These are sound practical observations, the truth of which cannot be disputed, or too much insisted upon.—A.M. ED.]

immediately so contract themselves as to embrace, and give resistance to their contents, but they accommodate themselves in time.

An immediate effect is sometimes produced on the equilibrium of the circulation, by the combined operation of these causes, which brings on such unpleasant sensations as terminate in faintness or syncope.

The peritonæal covering of the Uterus, as well as the lining of the abdominal parietes, is diminished in extent; and its vessels are proportionally lessened in capacity.

There is also, as is elsewhere observed, a relative alteration in the distribution of the blood through the pelvic viscera. That quantity, which had hitherto been determined to and through the Uterus for the nourishment of the child, is suddenly diminished, and is turned into other channels, or a part of it escapes out of the body.

To the above primary and immediate occurrences, others of a secondary and remote description succeed. A determination of blood is made to the breasts; these useful organs become enlarged and tumid, and commence that secretion, which is to form the natural nutriment of the infant for months to come. I shall consider that subject presently.

As contraction proceeds, the Uterus descends lower and lower in the pelvis: in the early days of that contraction, pressure is made upon the pelvic contents, and upon the blood vessels, nerves, and absorbents passing through its cavity.

The Uterus, which before delivery was almost wholly an abdominal viscous, now approaches its proper site, and daily becomes more and more an in-

mate of the pelvis: during these uterine changes, the broad and round ligaments gradually resume their original state and situation.

Can it then be wondered at, that, under the above several and varied operations, a lying-in woman should be subjected to inconvenience, or to occasional disease? Is it not rather a matter of wonder, that, under the delicate construction of the female body, after the endurance of such severe suffering, so few women should have cause of complaint? And, perhaps, in many instances, the foundation of complaint may be rather attributable to the mismanagement of a nurse, or of a friend, than to the necessary effects and consequences of labour. Nature has wisely ordained, that child-birth should go on in a slow and gradual manner, that the requisite changes may be brought about with little shock to the frame: and more serious symptoms frequently follow a quick and almost painless labour, than a lingering and painful case. It may, therefore, be some consolation to the sex, under the casual severity of their sufferings, to be informed, that a moderate share of pain insures to them present security from danger, with subsequent advantages¹⁸.

Within a few days after delivery, the lactary secretion is established. A considerable share of sympathetic action is known to exist between the Uterus and the Mammæ, and a determination of blood appears to be made from the one to the other. When

18 [The inconveniences, which our author supposes in some measure compensated for by "a moderate share of pain," arise from the suddenness of change in the parts concerned, and not from the exemption from pain; for was the process to continue equally long without pain, as it does with it, the same "security from danger" would follow.—AM. ED.]

the secretion of milk takes place, the uterine system is relieved, and the lochial discharge is diminished. These useful glands have been silently preparing, during the latter part of pregnancy, for this office ; but it is not perfected for some days after delivery. The means, from which the secretion is furnished, are sparingly supplied for the first twenty-four hours, and the secretion is scanty : after that period, both are improved ; by the end of the third or fourth day the breasts are freely distended, and the supply amply afforded.

The mind possesses considerable influence over the action of the breasts. If the child be still born, or if it be taken from the mother, so that her natural feelings are not interested about its welfare, the secretion of milk will sometimes be denied in some measure ; but this is not always the case. Even under the intention of suckling, if the infant be long withheld from the breasts, on the absurd plea, that there is no appearance of milk, the perfect secretion is proportionally retarded.

When the child's mouth is first applied to the nipple, it seems to have some difficulty in embracing it with the tongue, but its awkwardness presently disappears. The act of sucking, though instinctive, may easily be lost, and is with difficulty regained ; if the infant be plentifully fed, the natural call for the breast is taken away. The breasts then become distended and painful, the nipples retract, and febrile symptoms ensue. Such inconveniences are generally to be avoided by the timely and repeated application of the infant.

The duty of maternal suckling is so imperious on

all animals, and so natural, that it is almost needless to urge its performance to woman. The compliance with it secures many valuable advantages to the mother and to her infant: the voluntary refusal of it is replete with injury to both. The former tends to forward and to complete those silent changes, which are for weeks progressive: the latter interferes with them, and renders a woman liable to disease in the Uterus and Mammæ under their operation: the former establishes a proper degree of affection between the mother and the babe; the latter materially withdraws that affection.

If a mother refuse to suckle, her infant must either be brought up by hand, which is an unnatural and unsuccessful mode of nurture, or a wet-nurse must be procured. In such case, the babe does not suffer much injury; but an act of great injustice is done to that infant, who is thus deprived of its natural rights.

A voluntary refusal to suckle, on the part of any woman, evinces a want of the tenderest feelings, and of maternal affection for her new-born babe. But it does not merely implicate a dereliction of duty; it likewise involves an evasion of the strongest impulses of the human heart: it occasions a transfer of filial affection, gratitude, and obedience, from the mother, to a hireling, who cannot appreciate their value. Who is prepared to say, what may be the future result of this transfer? After a denial of its natural nourishment, after bereaving the babe of its only present birth-right, is it surprizing that instances of filial estrangement should occur; or, when once produced, that it should become permanent? May we

not attribute some of those disgusting alienations, occasionally met with in certain ranks, to the neglect of this delightful office ? Though human institutions admit of the introduction of ranks and degrees into society, the Divine Will has ordained that all women shall be equally liable to the pains and perils of child-birth, and to its consequences. Milk, therefore, flows similarly into the breast of the princess and the peasant, and frequently into those of the former in greater abundance, from better fare : it must thence be repelled or absorbed, under the risk of suppuration and febrile affections, and under the repeated exhibition of nauseous purgatives. That woman but ill consults her future health and comfort, who voluntarily declines this engaging office.

ON

ADHESION OF THE PLACENTA.

ADHESION of the Placenta to its uterine surface is by no means an uncommon occurrence, but it can seldom be positively known, until the hand is introduced for its removal; for we have sometimes to contend with similar symptoms when it is merely retained, and when it is more or less adherent. We may, indeed, suspect it to be the case, when the Placenta is out of the reach of the finger; when the Uterus continues large and high; when there is a sense of retraction on pulling at the Funis; and when there is a threatening of flooding; but I know, at present, no external mark, which certainly points it out. I have now and then remarked an irregularity in the shape of the uterine tumour; a hollowness or deficiency in its globular form; or a conical pointedness at its fundus; when I have been called upon to separate an adherent Placenta: but I suspect these are accidental appearances, and not essential to the case.

Placental adhesion is met with after all kinds of labours: as frequently after easy, quick, and natural

ones; as after those, in which uterine energy has been exhausted; or those, in which manual or instrumental assistance has been required. Its quantity and degree is variable in different instances: in some, nearly the whole mass is found in an adherent state: in others, only a small portion of it; yet the symptoms are equally violent. Sometimes the Placenta seems merely to retain its original attachment; it is readily separable by the hand; but it is not to be detached by uterine effort; nor can it be withdrawn by any moderate degree of force applied to the Funis: at other times, it is so firmly adherent, as almost to feel as if it constituted a part of the uterine structure itself; it is so strongly cemented to the uterine surface, that there is great difficulty in insinuating the fingers between the Placenta and the Uterus, and even in distinguishing what portion felt by the hand is Uterus, and what Placenta; especially in a contracted Uterus, when the hand has little room for action.

The continuance of the simple attachment of the Placenta may sometimes be attributed to deficiency or absence of uterine contraction; but its strong adhesion is probably dependent upon an agglutination of the placental surface to the uterine surface, in consequence of previous injury or disease; yet the cause producing it does not seem to interfere with the active powers of the Uterus.

I have observed adhesion of the Placenta to follow a blow*, pressure†, fall‡, or other external injury on the belly during the latter stage of pregnancy.

* Vide Cases viii. xviii.

† Vide Case xxi.

‡ Vide Case xxii.

I have also met with it in many instances, when the patient has previously suffered from a constant, dull pain*, especially in the night time, and which, on enquiry, has been referred to some part of the uterine tumour. In the former instance, I suspect that the injury has been accidentally applied to the external portion of Uterus to which the Placenta has been internally attached ; that it has not been so considerable as to produce separation of that mass, yet sufficient to excite the vessels of the uterine structure to an undue degree of action, and to throw out coagulating lymph, by which the placental and the uterine surfaces are morbidly united. But every blow or other external injury on the Gravid Uterus may not be productive of this mischief, since so extensive a space of uterine surface is free from placental attachment.

In the latter instance I have been induced to think, that a diseased action has been spontaneously established in the uterine vessels furnishing the Placenta, or in those of the deciduous membrane connecting it to the Uterus, by which similar effects are produced.—Be the assigned causes correct or not, the facts are deserving attention†.

* Vide Cases i. ix. xix.

† We frequently meet with great vagueness in the description of pain, and particularly in the description of the situation of that pain, and if any thing like precision be desirable, the patient should be requested to lay her hand on the part. A woman will tell you she has got a pain at her heart, and if you apply this test of the situation of the pain, she probably applies the hand to the epigastric region, or to any part but that over the heart. If she complain of a pain in the side, she probably applies the hand to the side of the belly. But even this test will not be sufficient to enable a professional man to discriminate between a pain in the parietes of the belly and one situated in the Uterus or in the parts underneath. If he wish to arrive at any degree of accuracy in this respect, he must examine the part with his own hand. The apparent indelicacy of this act must give way to the patient's welfare.

When the Placenta is not separated upon the birth of the child, the uterine tumour feels larger than usual under the hand; it is generally found less contracted: upon passing the finger it runs along the Funis into the uterine cavity, and there is lost: upon searching round, no trace of the insertion of the Funis is perceptible, nor in most instances can any portion of the mass be felt.

It sometimes happens, however, though rarely, that while a small portion of the upper surface of the Placenta still continues adherent, the opposite edge and side are pushed down upon, or protruded through, the os uteri, and even the insertion of the Funis comes within reach of the finger*. This case forms one of the most deceptions that can occur in practice, and demands more than ordinary caution in its detection and management; for if, on the presumption of the above appearances, the Placenta be supposed to be entirely detached, and an active attempt be made to withdraw it by pulling at the cord, either the mass of the Placenta will be torn, and a portion of it left behind adherent to the Uterus, or the Funis will be broken off†, and the future guide to the removal of the Placenta be lost.

This case is to be suspected by the mass of the Placenta being elongated, by a portion of it being within reach, while the remainder cannot be surrounded by the finger; by an opposing resistance to the degree of extractile purchase offered by the Funis; and by an increase of hæmorrhage on every attempt to extract the Placenta by the cord.

* Vide Cases vii. xiii. xxi.

† Vide Cases vi. xi. xiv.

In all cases of adhesion, after an uncertain time, hæmorrhage ensues. The blood is sometimes discharged fluid and florid; at others coagulated and darker; the size and number of the coagula being always in proportion to the quantity of blood which has escaped, and to the time it may have remained extravasated in the Uterus, before its escape. This hæmorrhage sometimes occurs immediately after delivery; sometimes within the first hour; and now and then after a more protracted period. There is seldom a disposition in the Uterus to active contraction. If slight after-pains do come on, they produce little effect on the Placenta, or on the size of the uterine tumour; but with every uterine contraction, fluid or coagulated blood is passed. The hæmorrhage continuing with a greater or less degree of violence, the patient complains of faintness, or perhaps goes into a state of complete syncope. If active and judicious measures for the removal of the Placenta be not promptly taken, the symptoms rapidly advance, and the patient is soon placed in a condition from which her ultimate recovery is extremely uncertain. If pressure be made on the uterine tumour by the hand, an increased discharge for the present ensues.

Under this state of things, and especially if there be a constant, though apparently a slight, draining of florid fluid blood, I would press the practical caution, not to defer the removal of the Placenta too long. The woman must unavoidably suffer a farther loss in the manual separation, be that effected ever so dexterously; to what extent that loss may proceed it is impossible to foresee; neither can we foresee the difficulties we may have to contend with under

the separation : we ought therefore to beware, how we allow the effects of depression to proceed so far before the attempt be made, that the additional loss she must encounter, may not irrecoverably sink her²⁹.

The hæmorrhage is, in some cases, so immediate after the birth of the child ; it comes on so unexpectedly, and proceeds with such rapidity, as to induce, in a few minutes, the most alarming symptoms. I have known such an occurrence happen after a lingering labour, when the child has appeared to be lifeless ; and while I have been endeavouring to restore suspended animation, the mother has become faint from the sudden discharge in my short absence from the bed side, occasioned by an adherent Placenta. Nay, sometimes the patient is irretrievably depressed, before any steps can be taken for her safety.

This hæmorrhage is occasioned partly by the distension of the Uterus by the presence of the Placenta; but it arises principally in the separation of one portion, while the rest remains adherent. When the Placenta is *completely* detached by contraction, the extremities of those uterine vessels which passed into its cell are closed : but when it is only *partially* detached, they remain open ; they cannot contract. The vascular connexion and circulation, between the *adherent* portion and its correspondent surface, are continued as long as it adheres ; and the blood, sent into its cells, is returned to the mother's body : but the connexion and circulation between the *separated* portion and its correspondent surface are interrupted,

19 [This is a valuable practical caution, and should never be lost sight of—an attention to it will justify the young or timid practitioner, and will confirm the experienced one.—AM. ED.]

or rather destroyed in that separation ; and the blood transmitted to it escapes out of the body. Besides, the vessels of both the attached and detached portions freely anastomose, and afford a ready supply, the one to the other ; so that the latter not only empty themselves, but, also, allow the blood of the former to escape.

Hence arise the suddenness, the rapidity, and the continuance of the hæmorrhage. Its degree is in proportion to the quantity of Placenta detached, and to the diameters of the uterine vessels. When the quantity of detached portion is increased without correspondent uterine contraction, whether by repeated attempts to extract the Placenta by the Funis, or by a defeated attempt to separate and remove it by the hand, the hæmorrhage is for the moment uniformly increased*. When the Placenta remains completely attached through its whole surface, little or no hæmorrhage ensues ; but when a partial detachment begins to take place, more or less of that symptom immediately shews itself. In some cases of enlarged Uterus, without flooding, I have been led to suspect its entire adhesion ; and such suspicions have proved in the sequel to have been but too well founded, in the subsequent appearance of hæmorrhage, and the necessity of removal by the hand. When adhesion of the Placenta exists after the delivery of twins, and the Uterus remains considerably enlarged, hæmorrhage soon makes its appearance, and then proceeds with unusual rapidity†. This is almost a necessary consequence of the large extent

* Vide Case xx.

† Vide Cases iv. v.

of uterine surface occupied by the double Placenta, while the extremities of its vessels are devoid of due contractile power. Whether one portion may be entirely separated, or whether a part of each may be adherent, can only be known upon the introduction of the hand. I think it will generally be found, that when haemorrhage occurs between the birth of the child and the removal of the Placenta, its cause, in the majority of cases, depends on the partial adhesion of the Placenta.

Under sudden and extensive loss of blood in this interval, the timely and judicious extraction of the Placenta offers the only hope of future safety to the patient, by securing contraction, and thus closing the enlarged vessels; yet this expedient will fail to answer the intended purpose, unless the Uterus acts promptly on the occasion: if its contraction be denied, the flooding will continue, even after extraction. That desirable object is always more safely and more speedily effected by the hand, than by any other means; and, under our ignorance of the actual state in which the Placenta is disposed of, the practice seems obvious and necessary.

Upon the introduction of the hand, it is always gratifying to meet with some resistance on the part of the Uterus, and to find contraction continue so powerfully, after the separation, as almost to expel the hand, with the Placenta within its grasp: it is equally mortifying to witness its absence, and to leave a flaccid state of Uterus.

But cases frequently occur, in which the loss of blood is gradual, yet constant: in which there is a continued trickling of florid blood from the external

parts for a length of time before the system begins to feel the loss, or to shew marks of its effects*: at length, however, the countenance becomes bleached ; the pulse small and rapid ; faintness comes on, which perhaps ends in complete syncope, with frequent sighing or sobbing ; respiration is quickened ; the eye loses its lustre, and the woman complains of her sight failing ; and now and then of a sense of swimming in the head, or a pulsatory pain. When such symptoms appear, the removal of the Placenta cannot be deferred. Yet, though this act can alone rescue the patient from such imminent danger, the utmost degree of care, the greatest possible caution, is required in putting it in execution. The *time when* to act must be determined by the urgency of the case, and the state of the patient ; but let us ever beware of procrastination.

We are liable to be deceived in the quantity of blood lost, because it is received upon napkins, or flows into the bed ; and without close attention to the progress of the case, we are still more liable to be deceived in the velocity, with which that blood is lost. It is almost needless to mention, that different women are not similarly affected by an equal loss of blood, nor the same woman at different times. Some bear, what may be thought, an immense discharge at this time, not only without the risk of life, but even sometimes without the appearance of any alarming symptom ; while others sink irrecoverably under one apparently trifling. The effects of hæmorrhage, therefore, ought ever to be viewed in a

* Vide Case viii.

relative light ; since it is so difficult to form any conjecture, *a priori*, of the quantity of blood any given woman may be suffered to lose, without present or future detriment. But it may generally be asserted, that the more rapidly and suddenly the loss is made, the more immediate and violent are its effects ; yet a slight continued draining will at length induce equal symptoms of danger.

Under this uncertainty of the impression likely to be produced by uterine hæmorrhage, attention ought rather to be paid to its symptoms and effects on the constitution, than to the quantity of blood externally evacuated. It sometimes happens, that the blood, trickling out of the uterine vessels, does not make its immediate escape ; it remains within the cavity, or in the Vagina, and coagulates. If the Uterus be flaccid ; if it be not disposed to contract and to lessen its volume and capacity, (as is now and then the case,) it allows itself to be distended by these coagula formed as rapidly as the blood is extravasated, which, by accumulation and distension, add to the increase of the hæmorrhage in a rapid ratio. These occurrences are passing within the cavity ; so that the quantity of blood constantly oozing out of the uterine vessels is concealed ; it is frequently unnoticed.

It is thence readily believed, that the general loss is not so great as it ultimately proves. If uterine contraction now take place, or if a grasping pressure be made on the Uterus by the hand, these coagula, which have been collecting at the os uteri, with any fluid blood behind them, are expelled, and the loss is then obvious.

This is a case of concealed hæmorrhage, or of flooding into the uterine cavity : it calls for a considerable share of watchful attention in its detection and management. I grant that it occurs more frequently after the removal of the Placenta, than in the case before us ; but whenever it does occur, it may be unsuspected, or even overlooked, and the woman's life may be placed under the greatest hazard, if not forfeited, by its eluding the vigilance of the accoucheur, or entirely escaping his observation.

The case proceeds somewhat in this manner ; after an inconsiderable discharge of blood for some time, which has excited little apprehension of danger, the patient becomes faint : if contraction now take place, or compression be made, coagula and fluid blood are expelled ; and then the faintness is increased. In a short time the Uterus enlarges, and there is a repetition of the preceding symptoms. The face presently assumes an exsanguined, a death-like appearance. The patient becomes restless ; she turns herself from side to side, and tosses about in various directions ; she expresses extreme anxiety for the constant admission of fresh air, and is gratified by the use of the fan. By and by respiration becomes quickened and laborious, with deep and frequent sighing, and with repeated exclamations of her dangerous state, "*Oh ! I shall die !*" "*How ill I am !*" And death soon closes this fearful, this anxious scene, with perhaps a previous convulsion fit, if the timely extraction of the Placenta does not interfere.

A state of continued faintness is more dangerous in its ultimate consequences than that of actual syncope. During the former, the action of the heart

and of the arterial system, though diminished in power, is never entirely interrupted ; the pulse does not cease : after a short time, what that system loses in power, it acquires in velocity ; the pulse becomes rapid : the draining loss is kept up by the constant supply ; it does not subside for a moment. But during the latter, there is a temporary suspension of arterial action ; the pulse is not for the time to be felt ; and during this suspension, there is a cessation of the hæmorrhage ; no further loss goes on ; so that when the patient comes to herself, she is not in a worse situation than before its access. A state of continued faintness, or repeated attacks of syncope, always indicate great danger, and justify considerable alarm. The patient cannot be safe, till after the removal of the Placenta ; yet I doubt whether the attempt ought to be made under a state of absolute syncope. At that time, under such diminution of vital energy, any addition to the loss already sustained may irrecoverably sink the patient, and an additional loss there must necessarily be. It appears to me desirable, therefore, to procure a revival from syncope by stimulants, or other means, before the introduction of the hand, else the patient may not survive the operation. The extraction of the Placenta cannot be supposed capable of restoring the quantity of blood which has already escaped, or of remedying the effects thence arising ; it can merely prevent a farther loss. If extraction be deferred on this account, the patient should be carefully watched in the interval, lest hæmorrhage be going on internally, or lest it should return. Under a state of

great exhaustion, every ounce of blood becomes a matter of importance to the system.

At the commencement of a case of this kind, the attendants may be usefully employed in the application of cold to the abdomen, in the exhibition of acid fluids, in the use of ices, and in the admission of cool air into the room: yet too much reliance ought not long to be placed on these means²⁰. If they do not soon produce some diminution of the hæmorrhage, recourse must be had without further delay to the manual extraction of the Placenta; the use of the above means in this, and indeed in other cases of uterine hæmorrhage, must be confined within proper bounds. The indiscriminate application of cold, under great exhaustion and extreme faintness, is very detrimental. The animal body cannot, under such a state of debility, evolve a sufficient quantity of heat to counteract the effects of the continued application of cold. In such instances the moderate and judicious exhibition of stimulants is not only grateful, but highly beneficial. I allow that the exhibition of stimulants, in this case of uterine hæmorrhage, does not admit of much latitude. When unadvisedly given at the commencement, they are not only unnecessary, but are certainly productive of mischief: when they are prudently exhibited under a state of exhaustion, they are always advantageous, and even occasionally enable a constitution

20 [This is a judicious caution, and should never be violated—but in addition to what is here and afterwards proposed, we would recommend four or five grains, or even more in desperate cases, of the sugar of lead, with a quarter of a grain of opium, every fifteen or twenty minutes; or the ergot may be exhibited in scrupule doses. *Med. Record.—AM. ED.*]

to rally, when its powers appear to have been reduced to the very lowest ebb²¹. They therefore generally make a part of the lying-in preparations to be resorted to, if necessary. The application of volatiles or of vinegar to the nose may also be allowed *ad libitum*; the latter is generally preferable.

A moderate, yet proper, degree of grasping compression on the uterine tumour, by the hand, thus enclosing it within its powers, may, in every instance, be practised before the removal of the Placenta; but this expedient will be found the most certain resource, (the positive introduction of the hand excepted) for producing uterine contraction, when flooding continues, or returns, after that mass has been withdrawn²². I am not an advocate for the exhibition of large and repeated doses of opiates in uterine haemorrhage from the presence of the Placenta.

After the Placenta has been withdrawn, the woman is left in a depressed and uncertain state. Her person is now to be made as comfortable as her situation will admit; the wet and soiled linen is to be removed, and its place supplied by dry warm napkins; and, assuming such a posture as may be agreeable to her feelings, she is to be allowed to remain

21 [Some women are wont to faint from small losses of blood, while others may be nearly exsanguined before this state is induced—it is well therefore to discriminate between these two cases—in the first we should deprecate the use of stimuli, while in the other they become absolutely necessary if we would prevent death. The use, however, of stimulants should be restricted exclusively to the time of excessive exhaustion; they should be immediately withheld so soon as the system discovers the slightest disposition to reaction.—A.M. Ed.]

22 [This expedient should never be omitted—it is oftentimes of vital importance.—A.M. Ed.]

in that situation till she is somewhat recovered, and till the circulation begins to find its level. Every attempt at motion under exhaustion is attended with danger. The further use of stimulants may now be dispensed with, and some light nourishment may be offered in their stead. Though the exhausted state of the patient may seem to demand their continuance, their exhibition is forbidden, in the expectation of that vascular reaction which almost always succeeds the loss of a large quantity of blood; unless, therefore, the patient remain under a state of continual faintness, almost threatening dissolution, they ought not to be permitted.

One of the most distressing symptoms of vascular reaction, is a pulsatory pain in the head, especially on that side on which the patient is reclining. It is described as a noise resembling the tick of a clock, or the beat of a small hammer. It is extremely annoying, and prevents natural rest. This symptom spontaneously and gradually disappears in a few days, as the patient improves; but being so extremely unpleasant, a request is usually made for relief from medicine. That object is more readily and more certainly obtained by early and active evacuations of the bowels than by any other medical means. Opiates seem rather to increase than to diminish this troublesome symptom. The necessity of keeping the body in a reclined posture during its continuance, of abstaining even from any active attempt to raise the head, is evident to the patient herself in the inconveniences arising from a contrary conduct. I have always suspected this symptom to arise in irregular determination of blood to the head, from the

loss of that equilibrium in the circulation, which is so regularly preserved under a state of health.

Though the constitution, in the first instance, may appear to have rallied from the immediate effects of a great loss of blood, the patient may remain under a state of uncertainty for some days, giving full scope to the best exertions of matured medical judgment. During this time the careful observance of a reclined posture, and of a state of perfect quiet in the room, the repeated exhibition of mild and simple nourishment, with opening or other medicine, as the case may seem to require, need scarcely be insisted upon. In the majority of cases, after the patient has recovered from the first effects of haemorrhage, a gradual improval is regularly observable, till at length health is established. But it sometimes happens, that, though in the first instance, there was a promise of recovery, the system has sustained such a shock, as to be unable, with the most judicious assistance, to rally and recover from its effects ; then the patient, after an uncertain time, declines and sinks.

Upon the whole, my experience enables me to say, and I think the following recitals will sufficiently bear me out in the assertion, that there is scarcely a case in the whole circle of midwifery, more pregnant with immediate and impending mischief ; there is not one in which the beneficial services of an experienced accoucheur are so obvious, even to the actual preservation of life ; there is not one in which sound judgment, passive coolness, and determined resolution are so absolutely necessary, as in floodings after the birth of the child, caused by

an adherent Placenta. And yet, every ignorant medical tyro, who has but just emerged from the trammels of the counter, or who has attended a few lectures, thinks himself qualified for the practice of midwifery, and dares to dash at these dangerous cases at every risk to his suffering patient. If he prove successful, he gains unmerited credit, and is emboldened in his ignorance, to the injury of some future patient: if he be unsuccessful, his failure is attributed to any cause but the true one. I am well aware, that every man must perform an operation for a first time; but he ought previously to make himself well acquainted with its nature, and with the obstacles he may have to encounter. In the case before us, a man is deprived of the advantages resulting from the exercise of every sense but that of touch; he has to depend upon information derived from the fingers alone²³.

23 [The whole of the chapter upon "adhesion of the placenta," shews a master hand—there is not an observation in it that is not founded upon experience, nor is there one that should not be carefully treasured in the memory. By an obedience to the precepts inculcated in it, even a young practitioner may conduct this truly perilous case to an happy issue; by a neglect of them, an old one may have his victims.—AM. ED.]

CASE I.

*Adhesion of the Placenta, preceded by pain in the
Abdomen.*

MRS. A. a beautiful and amiable woman, in her twenty-seventh year, consulted me towards the latter end of May, 1814, in the seventh month of her second pregnancy, respecting an unusual and almost constant pain in the lower part of the belly, between the navel and pubes. The part was somewhat tender to the touch; but the pain did not prevent her going abroad, nor was it materially increased on motion; it produced more inconvenience during the night than the day, and continued, more or less, till the time of labour. In the early part of her pregnancy, she had a fall down stairs, of which she took no notice. On the evening of Wednesday, the third of August, she fell into labour, and was delivered after a quick and natural process, about half after twelve, on the morning of the fourth, of a living child. I was not in the house more than one hour, before the birth of the child. The Uterus contracted well, and I expected an early release. After waiting some time for the natural separation of the Placenta, haemorrhage came on, but, on examination, the Placenta was not within reach of the finger; by and by, the flooding increased, so as to produce alarm in my mind for the safety of the lady. There

was still no disposition in the Uterus to throw off the mass, and the Placenta remained high, out of reach. As there was considerable responsibility attached to this case, not only from the respectability of the parties, but more particularly from the unavoidable absence of the husband from home, I requested of the friends present, that I might avail myself of another opinion, as to the propriety of removing the Placenta. An accoucheur of high celebrity was immediately sent for, who arrived a little after three. Upon his making an examination, by introducing his hand partially into the Uterus, he stated the Placenta to be adherent to the Uterus: this I had suspected, though I had not ascertained the fact, having been unwilling to introduce my hand, until authorized by the intention of separating the Placenta. My friend would willingly have withdrawn his hand, to give me an opportunity of performing that duty; to this I instantly objected, upon this principle, that having already partially introduced his hand into the Uterus, the lady would be put to far less pain and danger by his proceeding to the complete introduction of his hand, and to the separation of the Placenta at the moment, than by withdrawing it, and obliging her to undergo the same inconveniences a second time. I would not allow any personal consideration to interfere either with the safety of my patient, or with the increase of her sufferings. My friend met with greater difficulties in the separation than he at first anticipated; and, after having had his hand in the Uterus for some time, he was obliged to bring away the Placenta by pieces; it was at length, as far as we were able to

judge, all removed, and the lady bore the operation with the greatest fortitude. She went on well from day to day, without one single bad symptom ; the lochial discharge was moderate, and natural in appearance and smell ; the milk was secreted in plenty, and she suckled her child. Under these flattering appearances of rapid recovery, however, on the evening of the ninth day after her delivery, that is, on Friday the 12th, after having sat up the greater part of the day without the least inconvenience, after having repeatedly suckled her child, and after having taken her tea in her bed-room with her husband and another friend, while preparing to retire about eight, she suddenly complained of being faint, and of her head ; she walked across the room from her sofa to her bed, laid herself down upon the bed, and almost immediately expired without a groan. A neighbouring physician was called in, but he found her without pulse. I was sent for, and arrived at the melancholy scene in less than half an hour. The feelings of an affectionate husband, on such an occasion, can be better depicted to the mind, than described in words. I was not allowed an examination of the body. I had seen the lady every day, and was about to take my leave.

I cannot suppose that the previous adhesion, or the consequences of the separation of the Placenta, had any influence in producing the fatal issue in this case. The lady appeared to have entirely recovered from their effects. What was the immediate cause of death, it is impossible to say ; it is probable, that some large vessel suddenly gave way ; the consequences of which could neither be controlled nor

prevented. We have here, however, an instance of morbid adhesion of the Placenta, succeeding to dull unpleasant sensations about the Uterus. They are always worthy of attention.

CASE II.

Fatal from Loss of Blood.

ON the 19th December, 1814, I was called in a great hurry to a poor woman in the Curtain Road, whose child had been born above three hours, with the Placenta in the Uterus, above reach, and under a state of almost incessant fainting. She had already lost a large quantity of blood, and some part, of late, very rapidly ; she had a pallid countenance, with a pulse scarcely to be felt, and was becoming extremely restless : the uterine tumour was large to the hand. Under these symptoms of danger, I proceeded to the manual extraction of the Placenta immediately, and on passing my hand, I found the Placenta considerably adherent : I separated the mass very successfully, and the Uterus contracted ; yet during the operation there was an increase of the flooding. After some time I left her, under circumstances of great danger, and I was told she died within an hour, after my departure.

Under cases of this kind, I always have recourse to such stimulants as the house affords, as a temporary expedient to keep up the action of the heart : I therefore think it unnecessary to repeat its mention.

CASE III.

Suddenly Fatal from Loss of Blood.

EARLY in the morning of the 13th of April 1815, a note was sent to me by one of the midwives of the charity, requesting my immediate assistance to a poor woman at Hoxton, which stated, that she had been delivered of her child nearly one hour, but that the Placenta was high and out of reach ; and that a dangerous flooding had come on. I used all possible speed, and reached the bed-side of the patient between six and seven, within an hour and a half after the birth of the child, but found the poor woman already in *articulo mortis* ; her extremities were cold ; her pulse was not perceptible ; the pupil was dilated ; and the breathing interrupted. I attempted to get down some brandy, but she was unable to swallow ; and she shortly expired. I passed my finger into the Vagina, but the Placenta was entirely out of its reach : the uterine tumour was large and ill-contracted. Upon the whole, there did not appear to me, by the quantity of blood about the bed, to have been a great loss. The body was inspected the next day, and the inspection gave me ocular demonstration of the cause of so sudden a fatality. The Uterus was large and flaccid, and the Placenta was firmly adherent throughout its whole surface, except about half an inch round its edge ; it indeed required some effort to detach any part of it from the Uterus,

when out of the body. This Uterus is in my collection, at the London Hospital, with the Placenta adherent to it.

The quantity of Placenta separated during life, in this instance, in proportion to that remaining adherent, was small ; yet the blood evacuated from the separated extremities of the uterine vessels, was sufficient to sink the woman irretrievably within an hour and a half after the birth of the child.

CASE IV.

Hæmorrhage, from a part of one of the Placentæ being adherent in Twins.

ON the evening of the third of June, 1815, I was requested by one of the midwives of the charity to see a poor woman in Rosemary-lane, who had been delivered of two children, about an hour and half, but the Placentæ did not follow ; she was said to be under a state of violent flooding, and that convulsions were making their appearance. I hastened to the address, and found a poor woman as above described, but very much exhausted from the loss of blood ; with a pallid countenance ; hurried respiration ; constant faintness ; a small quick pulse ; cold extremities ; and the loss of blood continuing. I saw no chance of escape for her, but in the immediate removal of the Placentæ ; and after giving her some spirit and water, I proceeded to introduce my

left hand into the Uterus, which was large and uncontracted, while my right hand was applied externally to steady the uterine tumour. On effecting the complete introduction of my left hand, I found one of the Placentæ partially adherent to the Uterus, which having carefully separated, I embraced the whole mass of the double Placenta, and gradually withdrew it: the Uterus contracted immediately. During the time my hand was separating the attached portion, the loss of blood was very great, but it ceased upon the contraction of the Uterus; after this loss she fainted, but was roused by some spirit. She continued in a state of great uncertainty for some hours; at length the constitution began to rally. The next day the symptoms were still more favorable, and she was gradually restored. The labour had been quick and favorable.

CASE V.

Death, after a lingering Labour of three Children, from Hæmorrhage, occasioned by Adhesion of two portions of the triplet Placenta.

ON the evening of Wednesday, June 14th, 1815, my opinion was asked respecting a patient of a public charity in the eastern part of the town, who was attended by a midwife of the charity; the poor woman had been in labour the greater part of the day, and the midwife could not ascertain the pre-

sentation. I called upon the woman, and had no difficulty in determining that the breech presented ; I therefore recommended the midwife to wait the effect of the natural pains. I heard no more of the case till the Saturday afternoon, the 17th, when I was told the poor woman was dead. I waited on the midwife, to get the history of the case : she informed me, that during the night of Wednesday a living child was produced ; that in the course of the day of Thursday, a second child was born alive ; and that a third was discovered to be in the Uterus, which was expelled by the natural efforts on Friday evening, dead : that after the expulsion of the third child, she waited for the Placentæ, which were out of her reach ; that there were no pains, and not much discharge to alarm her ; and that early on the Saturday morning, the poor woman surprized her by *going off* suddenly, with the Placentæ within the Uterus, before she could ask for assistance. Hearing this story, I was anxious to examine the body. It was opened the next day, in my presence, by the surgeon of the charity. The Uterus was uncommonly large ; upon dividing its structure, one part of the triplet Placenta was completely detached, and the other two parts were adherent through their whole surface.

CASE VI.

Rupture of the Funis, under adherent Placenta.

ON the morning of Thursday, February 8th, 1816, my gratuitous assistance was requested to a poor woman in Spital-fields, who had been delivered of a child several hours, and who was flooding with the Placenta behind. This poor woman had been attended by a midwife during her labour, but flooding coming on soon after the delivery of the child, a young practitioner in the neighbourhood had been called to the case in a hurry, who, fancying he could bring away the Placenta, introduced his hand, broke off the Funis close to the Placenta, and then hastily retreated. In this dilemma, the woman suffering under all the symptoms of flooding, I was appealed to by the midwife. I had great difficulty in introducing my hand into the Uterus, in consequence of the degree of contraction produced by the previous irritation ; and, having accomplished that object, I had no less difficulty in separating the entire mass : I at length succeeded, though it was somewhat mutilated. I saw this poor woman on the Sunday following ; she had then got her milk, and was suckling her child ; no bad symptom had appeared since the delivery, and she afterwards continued to do well.

CASE VII.

The Placenta partially adherent, with the greater portion down in the Vagina.

ABOUT eight in the morning of the 25th April, 1816, I was called to Mrs. R. in Turk-street, Bethnal-green, on behalf of the charity ; she had passed a child without difficulty about three hours before, but the Placenta remained behind, with flooding and fainting. I found her much depressed, with a small weak pulse : the greater part of the Placenta was down in the Vagina, at which the midwife had been tugging till she had nearly separated the Funis ; the remainder was in the Uterus. On passing my hand, nearly one-third of the mass was morbidly adherent to the fundus uteri, and, during its separation, the woman suffered an additional loss, so that, on withdrawing my hand, she had fainted. The Uterus contracted well, and there was no more discharge. Some common spirit was given to her, which had a good effect. This woman continued in a depressed and uncertain state for several days, from which she gradually improved.

CASE VIII.

*Death, from continued draining of Blood for eight hours,
with adherent Placenta.*

ABOUT eight o'clock on the morning of Monday, January 6th, 1817, I was sent for in a hurry to a poor woman in the parish of St. Leonard, Shoreditch, who had been delivered of her child, about midnight preceding ; I was told that the Placenta was not then removed, and that she was in a weak and dangerous state. I hastened to the address given, and on my arrival there, the poor woman had breathed her last. I met a young professional gentleman, who had been in attendance during the process of a common natural labour, from whom I learnt, that after the birth of the child, he had waited for the exclusion of the Placenta by the natural efforts ; that, in the interval, there had been a slight but constant draining of blood, yet no suspicion of danger had been excited in his mind, by any unpleasant symptom, till within a very short time before I was sent for, when the poor woman appeared suddenly so exhausted, as to induce the attendants to demand other assistance. An interval of eight hours had therefore elapsed, between the birth of the child, and the death of the woman, during which, no effective attempts had been made to remove the Placenta. I was allowed to inspect the body the next day, when the Placenta

was found to be adherent to the uterine parietes through its entire surface ; the membranes, also, were singularly adherent ; the Uterus itself had acquired a state of common contraction. I was further informed by the poor woman's friends, that, a few weeks before she fell into labour, she had received a considerable injury upon the fore part of her belly, by running with violence against a post in the dark, after which, she had never been free from pain in the part.

The inspection of each body in this and the two preceding instances of fatality, from adhesion of the Placenta, was highly satisfactory and instructive. Each case convinced me, if conviction was necessary, that morbid adhesion did not only exist, but that it sometimes existed to a great extent ; and that any degree of contraction, which the Uterus could exert, would be unequal to the task of detaching it.

CASE IX.

Adhesion of the Placenta, with previous Pain in the Abdomen.

ABOUT half after five on the morning of Friday, January 10th, 1817, I was disturbed by a note from one of the midwives of the charity, requesting my immediate attendance, near Moorfields, on a poor young woman, in labour of her first child, and a near

relative of the subject of the preceding case. The note mentioned that the woman had been delivered of her child two hours ; that there was no appearance of the Placenta ; and that there was a violent flooding. On my arrival at the address, the poor woman had lost a large quantity of blood, but had not actually fainted, though there were evident marks of the impression which that loss had made, on the general system. On the attempt to pass my hand into the Uterus, I met with great resistance from the degree of contraction that viscus had undergone ; and when I had as cautiously as possible overcome that difficulty, I had great trouble in separating the Placenta with my fingers, it being attached nearly throughout its surface ; I at length effected its entire separation and removal, but a portion of the membranes was left behind. During the separation, there was an increase of the discharge, but on the removal of the Placenta it ceased, and the Uterus contracted ; though the woman was much sunk, she recovered. I saw her towards the middle of the day, and found she was surprisingly better ; from this time she continued to do well. This woman had complained of a pain in the fore part of her belly, long before her delivery, so that when she was in bed, she used to lie upon her belly and face for ease.

CASE X.

Fatal from Hæmorrhage under partial Adhesion of the Placenta.

ABOUT three in the morning of the 21st July, 1817, a note was sent to me, from one of the midwives of the charity, desiring my immediate attendance upon a poor woman in Goodman's Fields, who had been delivered about two hours of the child, and stating, "that there was a great flooding, but the Placenta "did not offer;" that "she was very weak and "low;" and that "she had been out of health two "months previous to her labour." I attended to the message immediately, leaving my home soon after three o'clock. I found the poor woman in a very sunken state; the pulse was scarcely perceptible; there was extreme restlessness; the woman tossed her body and arms about in every direction; she expressed a constant wish for fresh air; and the Placenta was out of reach of the finger. Introducing my hand for the removal of the Placenta, I found the Uterus contracted, and the mass partly adherent: this was gradually separated, and brought away, and the woman suffered little additional loss during the separation, but she died within the hour.

CASE XI.

*Death from Hæmorrhage under Adhesion of the Placenta,
with the Funis broken off.*

IN the early part of the day of the 10th September, 1817, during my absence to visit a patient at a short distance from home, a midwife sent in a hurry for me to see a poor woman, in Long Alley, Moorfields, who was said to be dangerously bad after the delivery of the child, and the after-birth not come away. As I was not in the way, the first professional man that could be met with, was taken to the spot, who attempted to withdraw the Placenta, but failed in the attempt, and broke off the Funis. On my return home in little more than half an hour, a second urgent message requested my gratuitous assistance. I attended on the moment, and found the poor woman almost in *articulo mortis*; the endeavours which had already been used had rather increased the danger than diminished it.

She had been delivered of the child about three hours, and soon after its birth, flooding came on, which was followed by repeated faintings. Without further loss of time, I introduced my hand, and separated an adherent Placenta without much difficulty, but the poor woman did not long survive the operation.

I have brought forward this case to shew the im-policy, nay, the danger of attempting to remove an adherent Placenta by any other means than the complete introduction of the hand, and the careful separation of it.

CASE XII.

Hæmorrhage, from Adhesion of the Placenta, proving fatal five days after Delivery.

IN the afternoon of the 18th October, 1817, I was called to the assistance of a charity patient, in East Smithfield, by a note from the midwife, stating, “that the poor woman had been delivered of the “child one hour ; that she was very low and faint, “with a great discharge of *clodders*, and that the “Placenta did not offer.” I hastened to the address with all speed, and found the woman under all the symptoms of great exhaustion ; she had rapidly lost a large quantity of blood, and no part of the Placenta was perceptible to the finger. I immediately introduced my hand into the Uterus, and removed the Placenta without difficulty ; a portion of which proved to be attached to the fundus uteri by preternatural adhesion ; during its separation, there was an additional flooding, and immediately after my hand was withdrawn, the woman went into a convulsion fit, which was of short duration. Some

spirit, with water, was now given to her, and she somewhat rallied. The next morning this patient was promising to do well, but towards evening she was attacked with a shivering fit, succeeded by febrile symptoms, the apparent effect of re-action in the system; under these symptoms she lingered to the fifth day, when she died.

CASE XIII.

A partial Adhesion of the Placenta, with the other part down in the Vagina.

ABOUT seven in the morning of the seventh of November, 1817, a note was sent to me from one of the charity midwives, desiring me to see a poor woman in East Smithfield, who had been delivered about an hour, who was flooding violently, had occasional discharges of coagula, and was repeatedly fainting; with the Placenta not brought away. On my arrival at the address given, this woman was much exhausted, under all the symptoms of great loss of blood; some portion of the Placenta was external to the Uterus, down in the Vagina, near the external parts; the remainder was elongated and passed up through the os uteri. The midwife, on finding the Placenta descend, had attempted to extract it by the Funis, but meeting with more opposition to her efforts than she was accustomed to, and the woman appearing to be in danger, she refrained

from further means, and sent to me. The Uterus was by no means large, but it was irregularly contracted ; it had assumed a conical shape at its fundus. I proceeded to introduce my hand without loss of time, and found a part of the Placenta, firmly adherent in a contracted space at the fundus uteri, into which I had difficulty to insinuate my hand to separate it. During the time my left hand was operating within the Uterus, my right hand was placed externally upon the uterine tumour, to steady it ; so that I had a good opportunity of ascertaining the abovementioned conical form of the fundus. After the Placenta was withdrawn, the woman was much exhausted. From this state, after a time, she began to recover, and was put comfortably into bed. She suffered for a few days, under symptoms consequent to such a loss, but at length got well.

CASE XIV.

The Placenta in the Uterus, with the Funis broken off.

ON the 11th November, 1817, about eight in the evening, a charity midwife sent a note to my house, wishing me to attend a poor woman in Montague-street, Spital-fields, to take away the Placenta, “ for “ it was out of her power,” and saying, “ the poor “ woman had had a bad labour, and a dead child.” I was not, at the moment, in the way, though at no great distance from home. By and by, another note

was sent to me from a young professional man of the neighbourhood, who had been called in, desiring my assistance as soon as possible, as there was a case of adhesion of the Placenta, with flooding. I got to the patient about nine, almost breathless ; but my young friend had taken his leave. Thinking it necessary to do something, as he was sent for, he had attempted to remove the Placenta, but only succeeded so far, as to break off the Funis. This step had increased the discharge, which had previously commenced. The woman was at this time much exhausted, and the uterine tumour small. I proceeded to introduce my hand : and having effected that part of my object, I brought away the Placenta without difficulty. It appeared to me, that the Placenta was detached in the Uterus, only retained by its contraction. The next day this patient had much recovered, and continued to do well.

CASE XV.

An adherent Placenta, with a contracted Uterus.

ABOUT seven in the evening of Saturday, December 6th, 1817, I was called into Goswell-street Road, to the assistance of a young woman, who had not been long delivered of her first child, but who had not got relieved of the Placenta. The child had then been born about three hours, yet no part of the Placenta was perceptible to the finger. A gentleman

was in attendance, who had previously attempted to introduce his hand to remove it, but meeting with greater resistance than he expected, he desisted, and sent for me. This ineffectual attempt had not diminished the difficulties I had afterwards to encounter. The Uterus was small, and firmly contracted to the external feel, but had not its regular round shape. The *os uteri* was rigid and closed; so as almost to embrace the *Funis* passing through it; there was no present hæmorrhage or pain; and if attempts had not been already made to introduce the hand, I might possibly have been induced to have left the case a few hours longer, in the hope that the mass might have been naturally thrown off. My friend seemed satisfied that the *Placenta* was morbidly adherent, and the external feel of the Uterus led me also to think so. In this conjecture he was not mistaken. On attempting to introduce my hand, I found the *os uteri* so rigid and firm, and the Uterus itself so much contracted, as almost to deny the entrance of the hand into its cavity: I had therefore gradually to dilate the *os uteri*, and to extend the Uterus, before I could pass my hand so high, as to be enabled to act effectually. This part of the proceeding necessarily gave much pain. Having effected an entrance, I found the *Placenta* almost generally adherent to the Uterus, and as I proceeded in its separation, one portion seemed to be confined in, and adherent to, a corner at the *fundus uteri*: I had much difficulty in getting my hand into this contracted space, so as to insinuate my fingers between the *Placenta* there attached, and the Uterus: I at length completed my object, and withdrew the *Placenta* entire.

Little hæmorrhage took place during the separation, and after the Placenta was removed, the Uterus was felt well contracted. I saw this patient a few days after, when she was going on well; she had merely suffered more than usual in a first child from the after-pains.

This case, and cases xviii. and xix. proved demonstratively, (if such proof were necessary,) the utter inability of the Uterus to detach the Placenta, under such circumstances of morbid adhesion, and the necessity of the introduction of the hand for its manual separation. The Uterus had contracted upon the Placenta, to its greatest extent, without being able to throw it off; nay, the greater the degree of contraction, the greater the improbability of its natural exclusion. Any violent attempt to withdraw the Placenta, by pulling at the Funis, must have been ineffectual and injurious; at the risk of breaking the Funis, or of rupturing the general mass of the Placenta. What might be the ultimate consequences to the patient, of leaving such a case to the operations of nature may readily be supposed; but in what mode these operations would be exerted for establishing a process to rid the Uterus of such a burden, I can form no conception.

CASE XVI.

Partial adhesion of the Placenta, with Hæmorrhage.

ABOUT 11, A. M. on Sunday, September 27th, 1818, my immediate assistance was required by a medical friend, in the case of a lady in Mile-end Road, the mother of several children, who had just been delivered of a living child, and who was supposed to be in great danger. I was driven to the place with all possible expedition, and my arrival being announced, my friend instantly came to me, and urged me to hasten up stairs, "as it was a very serious case." I learnt from him, that his patient had been delivered about an hour, after an easy natural labour; that the appearance of some flooding, soon after the birth of the child, induced him to attempt the removal of the Placenta by the hand; but that he had not been successful. This lady was suffering under repeated faintings, and other unpleasant symptoms, the usual consequence of flooding; and the drain was still continuing. She was perfectly aware of the danger of her situation, and repeatedly expressed her opinion, "that she must die." A portion of the mass was to be felt out of the os uteri, but the insertion of the Funis was not within reach of the finger. I introduced my hand into the Uterus, and found a part of the Placenta firmly adherent at its upper part; this was separated, and the whole was

brought away entire. There was considerable hæmorrhage during the operation, but the Uterus contracting, it ceased after the hand was withdrawn. This lady continued under a state of faintness for more than an hour, during which time, brandy, with water, was liberally given to her ; she afterwards went to sleep, and awoke much recruited. Under usual management, she was, in a few days, in as favorable a way, as if no such dangerous occurrence had happened.

CASE XVII.

Adhesion of the Placenta, with fatal Flooding.

ABOUT three in the morning of Thursday, October 24, 1818, a gentleman disturbed me, and requested my prompt attendance upon his wife, in the neighbourhood of Fenchurch-street, the mother of three living children, who had been just delivered of a still-born child, under the care of a respectable professional friend, and for whose safety he was much alarmed. I instantly accompanied him, and was introduced to a lady under appearances of the greatest danger. My friend reported to me, that this lady had passed through a natural easy labour about an hour before my arrival ; that the Funis came down by the side of the head, and was pulsating till within a few minutes of expulsion ; that, finding the child did not breathe, he had put it into warm water, and

used other means of restoring it ; and that, while he was making these attempts to recover the child, the mother was attacked with hæmorrhage, which produced faintness, and the continuance of which, had brought her into her present state of danger. An unsuccessful effort had already been made to remove the Placenta by the hand. She had a weak fluttering pulse, with a cold hand and a death-like countenance, and complained of great faintness. In every view of the case, there appeared no other resource, than the immediate removal of the Placenta, and even that offered but trifling hopes of a successful issue. After the exhibition of some strong brandy and water, I proceeded to pass my hand, and having entered the Uterus without much difficulty, a part of the Placenta was felt adhering to the Fundus ; this was carefully separated, and the whole brought away with but a slight increase of the hæmorrhage. Our patient seemed for a short time, to be placed under more favourable symptoms : afterwards she became restless and tossed herself about : she expressed a wish for fresh air, and to be raised up. The extremities now becoming cold, and the breathing more difficult, with a pulse scarcely perceptible, a convulsive attack closed this distressful scene within an hour after the removal of the Placenta.

CASE XVIII.

*Adherent Placenta, with contracted Uterus, and
Flooding.*

ABOUT half after two in the morning of Tuesday, October 27th, 1818, I was disturbed by one of the midwives of the charity, requesting my immediate attendance on a poor woman in George-street, White-chapel, who had been delivered of a living child about two hours before, was flooding violently, and who had fainted two or three times. On reaching the address given, I found a young woman of little more than twenty years of age, in her third labour, under circumstances of the greatest danger, with a small quick pulse, a cold hand, a bleached countenance, a frequent sighing, and restlessness. She had already lost a large quantity of blood, both in a fluid and coagulated state, but the discharge had, at this moment, somewhat ceased. On applying my hand to the uterine tumour, it was felt, at the brim of the Pelvis, hard, and well contracted ; and on examination, per vaginum, the os uteri was found thick, firm, and so far contracted, as almost to close upon the Funis, which passed up within it ; but no portion of the Placenta could be distinguished by the finger alone. The state of this young woman, demanded the immediate removal of the Placenta ; but I was well aware, from the degree of contraction in the

Uterus, that I should have to encounter considerable difficulties in the attempt. The introduction of my left hand was much resisted by the contracted state of the os uteri, and of the general substance of the Uterus ; but having slowly and deliberately effected this part of the operation, I proceeded to the gradual separation, in which the free use of my hand was much impeded for want of room. The Placenta proved to be so firmly united to the fore part of the uterine surface, that I experienced great difficulty in separating the two by the fingers ; and while thus acting, the Uterus rolled about at the brim of the pelvis, so as to require the application of my right hand to the belly, with some degree of force, to steady it. Having separated the Placenta, it was gradually withdrawn, and on examination it seemed perfect. There was no great quantity of blood lost during the separation, but from the previous loss, and the pain she suffered during the operation, she was left in a very exhausted state. An anodyne was now given. On visiting the patient in the morning, she was much recovered, she had slept a little ; her pulse had improved ; her countenance was cheerful ; but she complained of pain in the belly. On the morning of the 28th, the midwife wrote to inform me, that this poor woman was much worse, that she had passed a restless night ; that she was feverish ; and that there was little lochial discharge, or secretion of milk. A dose of calomel, with a purgative, and afterwards an opiate, relieved these symptoms. The next day she was better, and afterwards went on well. On inquiry, I learnt that this woman had received a violent blow upon the fore part of the

belly, from a man in the street, about a month before her labour, which occasioned her much pain at the moment, from which she had never since been entirely free, and which had always been more troublesome in the night-time.

CASE XIX.

Adhesion of the Placenta, with contracted Uterus.

ABOUT three in the afternoon of June 14th, 1819, I received a summons from a charity midwife to see a young woman, near Old-street Road, who had been delivered of her first child about three hours, and who was said to be very faint and low, with the Placenta adhering. I saw this patient without loss of time, about half-past three. Between the time of the midwife's sending off her messenger and my arrival, the poor woman had fainted three times. Her countenance expressed much distress ; her pulse was small and quick ; and the Placenta completely out of reach. I attempted to introduce my hand for the purpose of removing it, but the Uterus was so firmly contracted, that, for some time, it counteracted my best efforts. Having, by some perseverance, effected its introduction, I separated the Placenta, which proved to be adherent through the greater part of its mass ; but this part of the process was a matter of no little difficulty, and the poor woman suffered

under it considerable pain, though but little increase of flooding. After the Placenta was withdrawn, the Uterus contracted well; and though she was so much reduced, she soon revived and did well. The labour had been of short duration; the child was alive, and was afterwards suckled by its mother.

This poor woman had suffered from a constant uniform pain, during the two last months of pregnancy, which was referred, on inquiry, to parts about the navel.

CASE XX.

Adherent Placenta, with Flooding.

ON the 29th November, 1819, soon after midnight, my servant disturbed me by a knock at my lodging-room door, with a “Sir, you are wanted, in a very great hurry, to a lady in the neighbourhood; the gentleman desires you will make all the haste you can, for he fears the lady will be dead before you get there.” I slipped on my dress with all possible expedition, and hastening down stairs, was met by a respectable gentleman, in great trepidation, who desired me to hasten to the assistance of his wife in labour. During our way to his house, I had an opportunity of learning that his wife had just been delivered of her second child by Mr. ——, then a stranger to me, and that there was something

wrong with the after-birth. Being ushered up stairs, the lady was upon the bed, and her assistant kneeling on the floor, with his hand within the Vagina, or Uterus. Upon seeing me enter the room, he exclaimed, with pleasure, "How glad I am to see you, this lady is in great danger from flooding, and there is an adherent Placenta, which I cannot remove." Upon looking at the lady's countenance, and observing the quantity of blood about the bed, I saw enough immediately to convince me, that his fears were not groundless: besides, the lady was very faint, and under the impression "that she must certainly die." Without farther inquiry, at the moment, into the nature of the case, I requested him to withdraw his hand, and to give way to me; and slipping off my coat and baring my arm, I introduced my hand into the Uterus, and finding a large portion of the Placenta adherent at its upper part, I separated it without difficulty, and brought the whole away. The Uterus contracted, the flooding ceased, and the lady soon began to revive, after the exhibition of some brandy and water. I saw her several times afterwards, and at each visit found her better. This lady had suffered much from a constant pain in the right side of her belly, during pregnancy.

Mr. ——, told me, that his patient had gone through a common natural labour with apparent safety; but that soon after the birth of the child, flooding commenced, when he gave her a small dose of laudanum, and repeated it at very short intervals, to a large quantity in the whole, with the intention, as he remarked, of producing contraction of the Uterus. In spite of *these powerful means*, the flooding

increased, and the lady became faint. He then thought he ought to remove the Placenta; and made the attempt, but either not succeeding in the complete introduction of the hand, or not knowing how to proceed afterwards, he was foiled. Becoming now alarmed and the flooding increased in violence, he dispatched the husband for me, keeping his hand in the position in which I found him till my arrival. It proved most fortunate for this lady, her husband and family, that prompt and efficient assistance was so near at hand: the continuance of flooding, for even a short time, under her exhausted state, would certainly have placed her beyond the sphere of human assistance; the united efforts of all the accoucheurs in London, could they have been present at the moment, would not have been equal to the task of preserving an amiable woman from an untimely grave. The Uterus had in this case contracted longitudinally; yet not in the hour-glass form.

CASE XXI.

Adherent Placenta, with a part in the Vagina.

ABOUT noon of the 21st April, 1820, I was called to the relief of a patient of the charity, whose child had been born more than two hours, with the Placenta behind. The woman was said to be flooding and fainting. I found her under all the symptoms

of a great loss of blood, but which had then much subsided. A part of the Placenta was in the Vagina, but the greater part in the Uterus. The midwife had attempted to extract the Placenta by the Funis ; but as it did not come down, and answer her efforts, she requested my assistance. I immediately proceeded to introduce my hand, and I had to separate a large portion of the mass within the Uterus, from the Fundus, to which it was attached by morbid adhesion. I met with considerable opposition to the introduction of my hand from the contracted state of the Uterus. It appeared to my hand to be globularly contracted, and not in the hour-glass or longitudinal shape. During the separation of the Placenta, there was an increase of the discharge, but not to that extent as to endanger the woman. Complaining of faintness after the operation, I gave her a little brandy, which revived her. She suffered much from pain in the belly for several days, but it at length disappeared under the usual treatment. Upon inquiry, I learnt, that this poor woman was in the habit of carrying a large basket against the side of her belly during the whole of her pregnancy, of which she had repeatedly complained, and at length, towards her full time, the pain, induced by this practice, had become constant, and exceedingly troublesome to her : she considered it as necessarily attached to her situation.

CASE XXII.

Adherent Placenta, with Flooding.

ABOUT the middle of the day of Sunday, April 23, 1820, my immediate attendance was solicited upon a charity patient, in Coopers'-Gardens, Hackney-Road. The midwife's note stated, "that the child "had been born an hour and half, but the Placenta "was not come; that there was a great discharge; "and the breath very bad." I made the best of my way to the address, and on entering the hut, saw a poor woman almost lifeless; she was lying on her back, had a pallid exsanguined countenance, was becoming restless, and sighed frequently and deeply; the pulse was scarcely to be felt, and her extremities were cold; at this moment there was little flooding. The child had then been born about two hours; after the birth, the woman had gone on well for about one hour, when a violent hæmorrhage suddenly took place, which soon produced faintness; upon which I was sent for. Though there did not appear to me to have been any large loss of blood, the impression upon the constitution was very great. On making an examination, a part of the Placenta was to be felt within the os uteri, and the Vagina was filled with coagula. The Placenta could not be allowed to remain in the Uterus under these distressing symptoms, and yet little hope of recovery

offered by the removal. Upon the introduction of my hand into the Uterus, the size of which readily allowed its passage, a part of the Placenta was found to be adherent to the Fundus, which was easily separated by the hand ; the whole was removed, the Uterus contracting upon the hand as it was withdrawn. During the separation, an increase of the discharge took place. The woman was now exhausted, apparently in *articulo mortis* ; I, however, got down some brandy, which, for the moment, seemed to revive her : it was afterwards repeated by the midwife. I left her, after some time, breathing more regularly, but with a very weak pulse. After remaining in this languid state for a few hours, she began to revive, and, by and by, went to sleep.

The next day she had wonderfully recovered ; she seemed almost as well as if no such dangerous occurrence had happened. This woman had two falls towards the latter part of pregnancy ; one about three weeks before her delivery, when she hurt the side of her belly, and complained of pain there ever afterwards ; the other only a few days previous.

This was a case of unexpected recovery from the lowest ebb of life : it shews the propriety of giving the patient a chance, as long as life continues, by the prompt removal of the Placenta, under even the most unfavorable symptoms.

CASE XXIII.

*Premature Removal of the Placenta, in a Case of Twins;
occasioning Danger.*

EARLY one morning, not long ago, a carriage was sent to my door, to take me to give my opinion respecting a lady in labour, attended by a surgeon-accoucheur of her neighbourhood. This lady had naturally a very delicate constitution ; was approaching to forty, and had not borne a child for many years. During her pregnancy, she had been much out of health ; she was immensely large in size ; her legs had become ~~edematose~~ ; and she had suffered much from difficulty of breathing. The gentleman engaged to attend her, had been called a few hours before me, but not giving a satisfactory account of the progress of the labour, and expressing some anxiety, from her present state of health, that she might not do well, I was appealed to. Being introduced to the bed-room, a pallid countenance with general ~~edema~~, sufficiently evinced the propriety of that concern, which was so generally felt respecting the issue of the case, nor was I authorized to remove it.

I readily detected the breech of the child at the brim of the pelvis, with the os uteri under but a slight degree of dilatation, and the membranes entire. The pains were short and distant ; indeed, the labour

was just commencing. We retired into an anti-room, and I stated to my friend that the breech presented, and that, in all probability, the labour would be tedious. "What is to be done, then," asked he, with some warmth? "To be done," said I, "why 'nothing, certainly, for the present; wait patiently, "and let the breech come down of itself!!'" Having made my report to the husband, he would not dispense with my presence in the house. The labour went on slowly the fore part of the day, towards noon it began to quicken, and in the evening became active, so that the breech was felt regularly descending. Sitting in the room, while my friend was officiating at the bed-side, after a strong expulsive pain, he exclaimed, "it is all over;" and presently the child cried. I found, that as soon as the breech could be got hold of, the rest of the child was quickly lugged away, without waiting for pain, or any thing else. After the child was separated, I observed him busied about the Placenta: "Stop a little," said I, and, putting my hand on the belly, I detected a second child. I whispered my suspicions: "What, "a second child," replied he, "hush! hush!" Yes, said I, in the hearing of all around me, there is another child; and an immediate examination satisfied me, it was presenting with the head. We retired, when he again asked me, "What shall we do now?" I answered, "Leave the child to be expelled." Within an hour, the pains returning, the head gradually descended, and was protruded. My friend, as before, was the acting accoucheur, while I amused myself with a book in the room, at a short distance;

after a sharp pain, I heard the second child, and instantly it was in the world ; extracted without uterine effort, like the first. After the second child was separated, and carried into the anti-room, my friend returned to his patient. Unsuspicious, on my part, of any such occurrence, but my attention being attracted by the patient's cries, I found that he instantly, and, in fact, had already introduced his hand into the Uterus to remove the Placentæ, and that the lady was flooding most violently ; I then could not refrain from speaking sharply, and inquiring, what he was about ? His answer was, " that he " was bringing the after-birth, which was adherent." The mischief being already done, I became a mere spectator of such officious imprudence, though by no means a disinterested one : the patient's life and my character were equally implicated. By and by, he succeeded in removing the double Placenta, much mutilated, and I had my suspicions, that the whole was not brought away. The patient being now in a state of syncope, my endeavours were directed to revive her by stimulants, and after a time, she began to shew signs of recovery.

For several weeks this lady continued in a most perilous situation, but at length her constitution began to rally, and she got well. " Thought I to myself," in the language of the novel, this is strange practice ; but I was given to understand, that such was my friend's customary mode : he always " fetched" the after-birth. I am firmly persuaded, that in this case, he would have passed his hand to bring away the Placenta, even before the birth of the second

child, had my interference not prevented him. After my friend had finished his unnecessary job, his shirt and coat sleeve were deluged with blood.

It would be an insult to my reader to offer any comment upon the management of this case: but it read me an excellent lesson, and taught me to beware how I became a simple spectator of such improper conduct in another, without the means of preventing it.

CASE XXIV.

Fatal Inversion of the Uterus, produced by pulling at the Funis under Adhesion of the Placenta.

ON Thursday, the 21st of September, 1820, I was desired to be present at the opening of the body of a woman, who had died in child-bed, the Sunday preceding, of her second child, and whose death had raised much clamour in the neighbourhood. I was informed by her accoucheur, that she was, to all appearance, safely delivered of her second child on the Sunday evening, after a natural and quick labour; that he waited for the after-birth the greater part of an hour, before he made any attempt to remove it; and that he then began to pull at the Funis, without being able to bring it down. Finding, after some further time, that it did not descend, he attempted

to introduce his hand into the Uterus, but in this attempt he was foiled. Waiting a little longer, a strong after-pain came on, when he made another trial by the Funis, and finding an advance, as he thought, he continued to extract, when to his surprise and alarm, the Uterus came out of the parts as large as a child's head, with the Placenta adherent to it. Previous to this unfortunate occurrence, there had not been much discharge of blood, but now the woman began to flood violently, and soon became faint. He now endeavoured to separate the Placenta with his hand, but the violence of the flooding deterred him, and he desisted. Frightened, beyond measure, at the dilemma into which he had brought himself, and not knowing how to proceed, he sent for a medical friend, at the distance of about a mile, and waited his arrival; the poor woman, all the time, becoming worse and worse. His friend peeled off the Placenta, while the Uterus was inverted, and during the operation there was an increase of loss. The woman was now in *articulo mortis*, and the Uterus was passed into the Vagina, but not reverted.

I first passed my finger into the Vagina, and found it completely filled up by the inverted Uterus, which had now become flaccid; during life, it had been firm and resistent. On opening the body, there was such a horrible stench, as obliged me to leave the room for fresh air; and on my return, I was prevented making those nice inquiries into the relative state of parts, which the opportunity offered. The parts were, however, removed for preservation. The hand could be readily passed through the inverted Vagina into what had *now* become the uterine cavity.

If a case of this kind happened to me, or if I was called to one immediately after the accident, I would, by a gradual but firm pressure, made by the hand on the inverted Fundus, attempt to revert the Uterus on the instant ; and, should the attempt succeed, I would carefully separate the adherent Placenta before I withdrew my hand. The separation of the Placenta before reversion would either induce so considerable a degree of contraction as to foil the return, or, if contraction did not take place, would endanger the patient's life by flooding, as in the present instance. The mere return of the Uterus within the Vagina can be of no use ; it only hides it from external view. I have never seen a case immediately after inversion ; but I was desired, some months ago, to visit a poor woman in Shoreditch parish, three weeks after delivery, to whom the accident had happened at the time of labour, but it had not been detected. The inverted Uterus was then about the size of a goose's egg, and regularly contracting. The woman had suffered much from flooding and its consequences, but was recovering.*

* To this dangerous case, the terms *Dystocia Inversoria*, have been applied by nosological writers, and are retained by my respected friend Dr. Merriman, in his useful book, lately re-published, which contains much valuable information. But with every deference to the abilities displayed by different nosologists, and with friendly submission to that able practitioner, I must contend, that, in this instance, at least, both the term *Dystocia*, and its *adjunct*, are incorrect and misapplied. In the first place, the accident happened, in the preceding instance, and, I believe, most commonly happens, during the progress of *Eutocia*, in one of the most natural and simple labours that can be met with ; and it can only take place after the greater part of the labour is completed, that is, after the birth of the child : it ought not then to be classed under *Dystocia*. In the above case, inversion was produced by ignorance and mismanagement ; it might have been prevented, nay, it would not have occurred in abler hands. In the second place, with respect to the *adjunct*, it ought to refer to the state of the Uterus, and not to the species of

Some apology may be necessary for reciting such a number of cases of this kind, but I trust the reader will allow an excuse in the importance and responsibility of an adherent Placenta. I could, indeed, produce many similar, but I should only have to repeat the same symptoms, varied, perhaps, in degree, and the same general management. The difficulty with me is to make a selection of the cases. I will, in conclusion of the subject, merely repeat, that a morbid adhesion of the Placenta is fraught with the most imminent danger to the woman; that the natural powers are, in most cases, utterly unequal to the task of throwing it off, and that therefore the expert assistance of the accoucheur is imperiously called for to remove it. Under such circumstances, then, we ought to beware how we allow such an advance of dangerous symptoms, or such a lapse of time after the birth of the child, under symptoms of less apparent danger, that even the removal of the Placenta will not enable us to attain our intended object, the preservation of the patient's life²⁴.

labour; else an erroneous idea will be conveyed of the nature of the case. It is nothing more nor less than an Uterus turned inside out, by pulling at the Funis, when the Placenta is firmly adherent; and the simple terms *Inverted Uterus* express it sufficiently strong, and are intelligible to every one. I am perfectly aware, that it is far more easy to cavil at terms, than to write such a book as Dr. Merriman has produced; which will greatly add to that professional reputation he has already established, and which must benefit every reader by its perusal.

24 [The cases adduced by Dr. R. are highly valuable for the detail of practice they so naturally elicit; nor are they less important for the numerous practical observations which they constantly call forth; they should therefore be carefully studied and as carefully remembered, as they embrace considerable variety; each individual case being more or less peculiar; the young practitioner has therefore a constant source of information before him, and sees the

important routine of a first rate practitioner. It is true that the kind of case treated of, and thus happily illustrated, is comparatively of rare occurrence in this country; but it does occur, and when it does, must be regarded in the light our author views it; and the practitioner should be prepared to meet every contingency it may create.

The observations on inversion of the uterus, with which these cases terminate, is a disease of the most alarming and dangerous kind; and we should have been much pleased to have profited by more extended views on the subject, had the author's opportunities of seeing the disease been more ample.—Feeling the account rather brief upon this subject, we shall suggest what has appeared to us an improvement in practice in a particular state of the uterus when under inversion. Inversion may be concealed, as when the fundus is thrown down upon the os uteri, but is prevented from an entire escape by this orifice being somewhat contracted. We have seen a case of this kind—it was accompanied by flooding, faintness, and a peculiarly distressing kind of pain—the treatment suggests itself—gradually and gently to pass the hand through the os uteri—to carry up the fundus, and maintain it in its position until it and the body of the uterus contract—should the placenta be detached, withdraw it—should it adhere, separate it; and when assured of a disposition in the uterus to contract, withdraw this mass. It may be partially passed through the os uteri, while this may be flaccid, or it may make a very firm stricture upon the prolapsed part, by a powerfully contracting effort. In proportion to the extent of the prolapsus, and the strictness of contraction of the uterine mouth, will be the difficulty of the restoration of the fundus, and the danger from it; nay, it may be impossible to restore it, as when the fundus and the greater part of the body have passed through the os uteri, and it in a state of obstinate contraction. The bulk of the fundus and body, even when dispossessed of the placenta, far exceed the opening of the os uteri, and as this, when in this condition, cannot be made to relax, the fundus cannot be restored. It is now in a state of strangulation, and the symptoms are most violent and distressing; the patient, if not quickly relieved, dies; in this calamitous situation we propose as an improvement in practice, (and we have successfully acted upon it,) firmly to grasp the protruded portion of the uterus, and draw it downwards and outwards, until we completely invert it—by this means we instantly relieve the patient from severe suffering, and most probably from death. When completely inverted, all attempts at restoration are of course unavailing. For the resources of art under this state, see Newnham, &c.—AM. ED.]

ON

RETENTION OF THE PLACENTA.

THIS term is appropriate to those cases in which the Placenta is separated from its uterine attachment, on the birth of the child, but in which it still remains entirely within the uterine cavity. The case may be suspected by the Placenta not being found within reach of the finger, on a proper examination ; on passing the finger and tracing the Funis, either no portion of the general mass can be felt, or it is felt so imperfectly, as to give little satisfactory information whether it may be simply retained, or whether it may be adherent, as already described. But in whatever state it may ultimately be found, on the introduction of the hand, our present ignorance does not prove detrimentrl to the patient. The practice must be guided by future occurrences, not by present suspicions : we therefore wait in patient hope of the natural exclusion, until we are urged to the manual removal by time or danger.

The retention of the Placenta is met with under three distinct states of the Uterus ; each of which is different in its nature, and is generally distinguish-

able by particular symptoms. Each requires some diversity in general management, and places the patient in different degrees of danger ; but if manual interference become necessary, the mode by which the Placenta is to be withdrawn is similar in all.

The first case I notice, is “ that in which the Placenta is separated from its uterine attachment, on the birth of the child, but in which it is retained, or, to speak more properly, in which it is not expelled the cavity of the Uterus, for want of active contraction in that organ.”

The second case is “ that in which the uterine parietes have closed irregularly and longitudinally²⁵ upon the Placenta ; so that it is withheld by powerful but improper contraction.” This is usually called the hour-glass case.

The third kind, is “ that in which the Uterus has too quickly contracted in a globular form upon the Placenta, suddenly embracing that mass by an active grasp, before it has had time to escape out of the cavity.”

The first case most commonly occurs after lingering labours, in which the action of the Uterus has been exhausted by long exertion ; in which its natural powers seem to be worn out by the continuance of expulsive efforts. It is also met with in those labours, in which the child has been rather extracted by art, than suffered to be expelled. It likewise sometimes occurs under cases of operative midwifery, in which a similar state of Uterus has been

25 [This is effected by the circular fibres contracting firmly near the centre of the uterus, so as to make two chambers as it were in this viscus.—AM. Ed.]

induced by protraction. In such instances, the uterine tumour is felt higher than usual in the abdominal cavity ; it remains large, round, and somewhat flaccid ; though it offers to the pressure of the hand a considerable share of resistance, yet it does not feel firm ; and for the present, at least, that is, soon after the expulsion of the child, any portion of the substance of the Placenta, or the insertion of the Funis, cannot, on the most accurate examination, be discovered.

If, under such a state of things, the Placenta be unusually large ; if the uterine tumour possess a more than ordinary size ; if it continue to remain any length of time high in the abdominal cavity, and without contraction, doubts are occasionally excited in the mind of the patient, of the presence of a second child. The size and site of the uterine tumour indicate the degree of contraction which has already taken place, be it greater or less ; and in proportion to that degree, we estimate the probability of the present safety of the patient, or the chance of risk she may still have to encounter.

In such a case, no attempt, for the present at least, ought to be made, to extract the Placenta by the Funis ; for even supposing the accoucheur to be satisfied, as much as the case will allow, that the Placenta is detached from the uterine surface, (a satisfaction, indeed, extremely difficult to be obtained,) such an attempt, in the absence of contraction, would endanger an attack of haemorrhage, or the rupture of the Funis ; and would ultimately be unsuccessful in the result.

After the lapse of a short time, it usually happens, that a disposition to a return of action is observable in the temporary accession of after-pain, and in the gradual diminution of the uterine tumour. Such symptoms are highly favorable: in proportion to this degree of contraction, and to the frequency of its return, is the probability of the natural exclusion of the Placenta to be indulged: if it be excluded the Uterus, and be thrown down into the Vagina, it may be withdrawn at pleasure, under the precautions before-mentioned.*

But it also occasionally happens, as under adhesion, that, in the absence of returning action, a draining of blood is constantly going on, but so gradual, as to cause no present apprehension. The justified time for waiting passes, and the draining loss continues, till at length its effects begin to shew themselves, in the appearance of the usual symptoms consequent to hæmorrhage. If it be still allowed to proceed, the patient may shortly be placed under great risk of her life. A similar share of active attention, in watching the progress and effects of this drain, must be given to the case: it sometimes proceeds so slowly, and so insidiously, as to pass unnoticed, till it has produced great impression, or even threatens the destruction of the patient. To this external drain, is frequently added the accumulation of coagula within the Uterus or Vagina, which adds to the danger. It is then our duty, by a prompt and seasonable interference for the extraction of the Placenta, to anticipate and prevent such consequences;

* Vide Page 57.

and not to become passive spectators of the progress of mischief. The loss of blood, during the act of extraction, is usually less in this instance, than in the preceding case, especially if the Uterus contract upon the hand before it is withdrawn.

Upon the first appearance of the abovementioned drain, a temporary recourse may be had to the means before recommended for the restriction of hæmorrhage : but in the use of such means, it ought ever to be remembered, that, though sometimes useful, they are always uncertain. They seldom supersede the necessity of manual abstraction, under an attack of extensive hæmorrhage.

If sudden hæmorrhage should occur in the interval just alluded to, immediate assistance becomes sufficiently manifest. Whether the blood lost be evacuated in a fluid or in a coagulated state, if the quantity lost be so great as to threaten present or future danger, by its continuance or return, the speedy removal of the Placenta offers the only probable chance of safety to the patient : the longer this necessary operation is deferred, the less likelihood will there be of the patient's ultimate escape.

The second case of retained Placenta, or the hour-glass contraction, consists in the uterine parietes, upon the birth of the child, contracting themselves irregularly and longitudinally upon that mass, and retaining it within the uterine cavity, by powerful but incorrect action. This state of retention is by no means so frequent as the one above described ; it is, however, occasionally met with, and especially after lingering or difficult labours, which have called

for operative assistance ; or after those in which the body of the child has been too hastily extracted by the hand. It may, therefore, be mostly attributed to mismanagement or improper interference.

When this irregularity of contraction has taken place, the uterine tumour is felt under the hand considerably elongated ; it differs materially in shape and form from those, it is at this time usually found to possess, yet it gives sufficient resistance to the pressure of the hand. Upon passing the finger within the os uteri, along the Funis, no portion of the Placenta is to be felt at all. After waiting an uncertain time in the expectation of its expulsion, haemorrhage comes on, which is usually constant, variable in degree, but which gradually increases. The occurrence of this symptom, the elongation of the uterine tumour, and the impossibility of feeling the Placenta, point out pretty clearly the nature of the case. Strong after-pains sometimes make their appearance ; but they prove of no avail towards the exclusion of the Placenta. After a further suspense, the abstraction of the Placenta is found advisable, and, indeed, necessary to the safety of the patient. When the hand is introduced for this purpose, the cause of the detention is discovered. Having passed the Vagina, upon attempting to enter the uterine cavity, the hand is strongly opposed by a narrow contracted part of the uterine parietes, through which the Funis appears to run, and through which two fingers can scarcely be insinuated : gradually and cautiously distending the contracted part, so as to gain more space, the hand, by and by, is enabled to proceed upward, and to reach the Placenta, which

is generally found detached in a kind of cavity at the fundus of the Uterus ; and now, embracing firmly the general mass, the hand is carefully to be withdrawn. During the operation, however, it is desirable to wait the return of the contractile effort, which is generally produced by the presence of the hand, that a more correct state of the parietes may be ensured. After the Placenta has been thus gradually withdrawn, the uterine tumour resumes a natural shape, the hæmorrhage ceases, and the subsequent changes are properly effected.

The degree of difficulty to be encountered in dilating the contracted part by the hand is variable in different instances, and cannot be satisfactorily explained ; but whatever be that degree, it must be overcome in the gentlest, and in the most gradual, manner. The operation is highly painful, and demands a great exertion of fortitude on the part of the patient, as well as of patient perseverance on the part of the accoucheur. The more perfectly the dilatation of the contracted part is made by the hand, the more readily does the Uterus resume its natural state after the Placenta is withdrawn. The manual removal of the Placenta is, in such instances, from the very nature of the case, a matter of absolute necessity, and not a matter of choice : the increasing contraction of the uterine parietes tends to detain that mass, and delay only renders the introduction of the hand, and the whole operation more difficult : if, therefore, the case be early detected, the Placenta should be soon withdrawn, even before an attack of hæmorrhage renders that proceeding the more immediately necessary.

The third case of retained Placenta is that in which the Uterus rapidly and powerfully contracts upon the Placenta in a globular form, and suddenly embraces it, before time has been allowed for its escape from the uterine cavity²⁶. This is a more rare occurrence than either of the two preceding; but it does now and then happen. I have met with it after a rapid natural labour, in which the child was suddenly expelled before assistance could be procured. Under this state, there is little uterine discharge: the uterine tumour is small in size, firm and well contracted under the hand, and almost within the Pelvis: the os uteri is firm, thick, and nearly closed upon the Funis, passing within the Uterus. Upon carrying the finger within the cavity, the placental mass is more or less partially to be felt, with the uterine parietes, in firm contraction upon it. It remains within the Uterus, till time induces its removal, or relaxation of the Uterus with a subsequent effort, allows of its escape.

In this case, the impropriety of any attempt to withdraw the Placenta by the Funis, and the appli-

26 [To the three cases just enumerated, we shall add another, which perhaps is more common than either—this is, where the placenta has been partially protruded from the uterus, and the os uteri is contracting firmly upon it, so as to prevent its being withdrawn from the vagina by the cord. This offers no inconsiderable embarrassment to the young practitioner; foiled in his endeavours to deliver the placenta by a moderate force applied to the cord, he is tempted to use a greater, and thus to his utter dismay, separates it, from its connection; fearful of again encountering the difficulty, he solicits farther advice, to the no small alarm of the patient and her friends, or injudiciously waits for the efforts of nature to effect, what he dares not to achieve.

The management of this case is simple, and void of all embarrassment—it requires but the introduction of the hand within the vagina; to compress the placenta at the uterine orifice, and to gently withdraw it.—AM. ED.]

cation of a force sufficiently powerful to overcome the resistance given by the Uterus, must be too obvious to need my comments : the rupture of the Funis would be the probable consequence of this practice. The rational mode of proceeding is, gently and carefully to dilate the contracted Uterus by the hand, till the Placental mass can be entirely engrafted, so as to be withdrawn. The *time when* the removal is to be effected, must vary according to the symptoms and circumstances of each case : but as there is little hæmorrhage, as there is no symptom threatening immediate danger, every appearance of hurry ought to be avoided ; at the same time, as there is little probability of the ultimate exclusion of the Placenta by, in the first place, such a degree of relaxation in the os uteri as will favour its escape ; and, in the second place, by the return of contractile effort assisting it, it is useless, if not positively injurious, to wait the lapse of any great length of time before the attempt be made. There is stronger reason to presume upon the exclusion of a retained Placenta, under an enlarged state of the uterine tumour, than under a contracted one.

CASE XXV.

Hæmorrhage under a retained Placenta, which was naturally excluded after sixteen hours.

TOWARDS the end of September, 1811, a midwife asked my advice, about nine in the morning, respecting the management of the Placenta, in a poor woman in Whitechapel, whom she had delivered about five that morning, in a natural case. There had been already a considerable loss of blood, yet the pulse continued firm, and the countenance good. There was little uterine action. On examination, the Placenta was out of reach ; and the uterine tumour was moderately contracted. No impression could be made on the advance of the Placenta, by bringing the Funis to its bearing. Under these circumstances I hesitated to remove the Placenta at that visit. I saw the woman again in a few hours ; when, in the interval of my absence, there had been a constant draining of blood from the parts, large upon the whole, but apparently small within any given short time. The countenance had now become pallid, and the pulse weaker and quicker ; there was still little disposition to after-pains : a portion of the Placenta could now be felt by the finger within the Uterus, but no advance could be observed in the general mass by tightening the Funis, so that

I was led to suppose the greater part of the Placenta was still attached to the Uterus. I was now desirous of removing the Placenta, by the introduction of my hand, but the woman obstinately refused any assistance, and declared she would rather die than submit to it. During the afternoon she had repeated faintings ; the draining continued, with little tendency to uterine action, and she seemed to be placed under the greatest hazard of her life ; she still persisted in refusing assistance ; fortunately, however, and contrary to my expectations, a return of uterine action took place in the evening, when she was almost in a state of exhaustion, and the Placenta was thrown off with some coagula, about sixteen hours after delivery, just in time to save the woman's life. She continued for some days in a state of uncertainty, but ultimately recovered.

I have not inserted this case with any intention of its becoming a precedent for practice, or of restoring the exploded doctrine of trusting the separation of the Placenta, even under slight symptoms of danger, to the natural powers ; but merely, as one of those instances, which every practical man must now and then meet with, of the wonderful and unexpected exertions of those powers. Such a fortunate result cannot be generally expected ; and though this case ultimately turned out well, the woman's life was endangered by her obstinacy, and the chances of recovery were much against her. No prudent man would be disposed to witness a constant draining of blood from the Uterus, for many hours, occasioned by the presence of the Placenta, without an attempt

to remove the cause. Timidity may induce delay, or false hopes of the natural separation may flatter him, until the opportunity of preserving his patient has passed by.

CASE XXVI.

Fatal Hæmorrhage, under retained Placenta.

ABOUT five in the morning, of the 24th May, 1813, my gratuitous assistance was requested by a midwife to a middle-aged woman in Whitechapel, who had been some hours delivered of twins, and who was represented to be in a dangerous state. I was informed that the first child had been born the preceding evening, about nine, and the second, that morning about one ; that not long after the delivery of the latter, the woman was attacked with flooding and presently fainted ; the discharge soon ceased, and the patient rallied ; since which time, the midwife had been expecting the separation of the Placentæ, which had not yet taken place. I found this patient much exhausted, with a pallid countenance and a languid pulse : for though there had not been a sudden or violent discharge of blood for some hours, a constant draining had taken place. The uterine tumour was large to the hand, and no part of either Placenta was to be felt by the finger. As there could be no rational expectation of improve-

ment, as long as the Placentæ remained in the Uterus, though there was at this time not much hæmorrhage, I determined upon their removal. Upon introducing my left hand into the Uterus, the two Placentæ were found attached, but not morbidly adherent, to the uterine surface, nearly throughout their entire extent; so that I had to separate first the one, and then the other. During the operation, there was as little additional hæmorrhage as could be suppossd in such a case, but on withdrawing my hand, the woman had fainted. By and by difficulty of breathing took place, with restlessness, and she did not long survive. I was told that this poor woman had borne nine children, and that she generally had fainted after delivery.

CASE XXVII.

Hæmorrhage under a retained Placenta.

IN the forenoon of the 21st January, 1815, I received a note from one of the midwives of the charity, requesting my immediate attendance on a poor woman in Hoxton, who was stated to have been delivered of the child four hours, and that the Placenta would not come; that she flooded violently, and had fainted, and was in a very bad way. I hastened to the address given, and found a poor woman as above described, under all the consequences of a consider-

able loss of blood, with the Placenta in the Uterus, and a large uterine tumour. Being extremely faint, I requested some spirit and water might be given to her, before I attempted the removal of the Placenta. I then introduced my hand into the Uterus, found the Placenta detached, and grasping it, gradually withdrew it without difficulty, at the same time making a compression with my right hand on the surface of the belly ; the Uterus contracted and the flooding ceased. After a short time, the faintness went off, and the woman did well.

CASE XXVIII.

The Funis broken off, under a retained Placenta.

SOME years ago, I was called, about ten A. M. into Spital-fields, to a poor woman, who had been delivered of the child nearly two hours, but the Placenta was behind, with the Funis broken off close to its insertion. I was told by the attending accoucheur, that his patient had gone through a lingering labour of several days continuance of her first child, and that during its progress, he had given her several doses of laudanum of fifty drops each : that the child was at length born, and that, after waiting some time for the after-birth, without any return of pain, he attempted to extract it, and broke off the

Funis. At this time the Uterus was firm and moderately contracted ; the Placenta was entirely within its cavity, and could not be felt by the finger ; there was no haemorrhage, or disposition to after-pain ; but the woman was disposed to doze. In the absence of any dangerous symptom, I recommended the woman to be, for the present, left quiet. I saw this woman again about two P. M. when she continued in nearly a similar state. I paid her a third visit about six P. M. ; at this time there had been an occasional return of after-pain, and the Placenta was found to be descending through the os uteri. In about another hour it was protruded into the Vagina, and removed without difficulty by her attendant.

My opinion in this case was, that the uterine efforts had been in some degree paralyzed by the effect of the opiate²⁷ ; and I was desirous of giving time to suffer its effects to pass over. The case offers a prominent caution against inadvertently pulling at the Funis.

27 [We agree with the author "that the uterine efforts were in some degree paralysed by the effect of the opiate," for we have ourselves witnessed such consequences from similar causes; we hold it therefore bad practice to give powerful doses of laudanum, (for such must be regarded 50 drop doses,) under the circumstances of the case related. Should the woman be much exhausted, and no pressing necessity exist for immediate interference, a moderate dose of the tincture of opium may be given; it will prove cordial, and allay that unavailing uterine nisus that sometimes accompanies this case.—A.M. Ed.]

CASE XXIX.

Natural Expulsion of the Placenta, in a Case of Premature Labour after several days.

ON the 16th May, 1816, one of the charity midwives desired me to visit a poor Jewess, in Petticoat Lane, who had been some hours delivered of twins, with the Placenta behind. This proved to be a case of premature labour, or rather of miscarriage of twins, about the fifth month of pregnancy. There was no haemorrhage, nor other bad symptom; but, as the Placentæ were not come away, the friends of the woman were alarmed for her safety. The Uterus had contracted well upon the expulsion of the second child, and a small portion of the general mass of the Placentæ was to be felt out of the os uteri; the remainder was within it. Under such circumstances, knowing that it was impossible to introduce my hand completely into the Uterus, even if the symptoms had been more pressing, I refused to offer any manual assistance; but recommended the people to wait for the natural separation of the after-births. On the 19th, a part of the mass was removed by the midwife from the Vagina, and in a few more days the whole was satisfactorily thrown off by uterine action, without the intervention of any alarming symptom.

I do not insert this case so much for its own merits, for it is one of frequent occurrence, as with a view

of urging the propriety of refraining from any violent attempts to remove the Placenta, in cases of premature labour, before the completion of the sixth month. I have seen many instances of the injurious effects of such attempts : in one, which made a strong impression upon my mind, a very lovely woman was placed in great danger of her life, by a flooding, brought on by the ill-judged, but ineffectual, attempts of an ignorant, officious practitioner, to remove the Placenta by the hand, under a case of miscarriage, between the fourth and fifth month. I have known cases terminate favorably, in which considerable hæmorrhage has taken place in the interval between the expulsion of the foetus and the exclusion of the Placenta ; but I have not met with one, in which similar symptoms of danger have succeeded the retention of a part of the Placenta at this period of pregnancy, as are met with, under like circumstances, at the full period.

ON

DISRUPTION OF THE PLACENTA.

I APPLY this term to that unfortunate occurrence, in which the general mass of the Placenta is broken, and the ruptured part of its substance is left behind in the Uterus attached to its original site.

The accident has generally, if not always, its origin in mal-practice or bad management ; it ought, therefore, never to happen. It is commonly produced by the application of premature and imprudent force to the Funis, in the attempt to extract an adherent Placenta through its means : yet it may happen, under an incautious or hurried attempt to remove an adherent Placenta by the hand. In every instance it is big with impending mischief.

When there is reason to suspect from the previous difficulties attending the removal of the Placenta, from our having met with an opposing resistance to its usual mode of extraction, and from having forcibly overcome that resistance, that its mass is broken, the melancholy fact is immediately and satisfactorily detected by inspection and examination of it, after it is withdrawn. If our suspicions be unhappily realized,

a greater or less portion will be found wanting ; and knowing the fact, we are placed on our guard. Yet I must confess, that sometimes the case is not so directly obvious, especially when we have had to contend with considerable difficulties in the removal of an adherent Placenta by the hand ; and when, under the removal, the mass has been brought away piece-meal, divided into numerous fragments : it is then almost impossible to be certain, whether the whole be brought away or not ; there is frequently a well-grounded fear, that some particles may be left behind. In the first instance, a portion of the whole mass, with its investing membrane, will be left at its original attachment : in the latter, some of the filamentous particles of the placental vessels will only remain adherent.

When a considerable portion of the Placenta is broken off, and left adherent to the Uterus, a degree of hæmorrhage succeeds, proportionate to the quantity left behind²⁸ : there is commonly a frequent recurrence of after-pains : after some time, the discharge of fluid blood begins to diminish, but the occasional expulsion of coagula continues. For the first day or two, the patient suffers little other incon-

28 [We confess ourselves a little at a loss to comprehend our author in this passage—for if “a considerable portion of the placenta be broken off,” it cannot be “adherent to the uterus,” and it is declared to be broken off; and if it be adherent no hæmorrhage can follow, for this is prevented by the very circumstance of its being “adherent.” We should say, that the discharge would be in proportion to the portions of the placenta which were detached from the uterus, for that alone produces the exposure of the vessels which pour out blood. If we omit this explanation, and admit there is a portion of the placenta left behind, perhaps partly separated and partly adherent, we must confess the symptoms to be accurately detailed, and the progress of disease to be faithfully described; and we subscribe most cordially to the author’s apprehensions, and to his general remedial plans.—AM. ED.]

venience than that which arises from the loss of blood, and the more frequent and the more violent returns of the after-pains. The secretion of milk is occasionally established; but the act of suckling produces an increase of uterine pain. These temporary returns of pain at length terminate in uneasiness of a more settled and more permanent description, which insensibly increases in degree, until it assumes the character of a continued tenderness of the uterine tumour, but which is temporarily increased by the pressure of the hand. The uterine tumour is generally well contracted. After the lapse of a few days, the local uterine irritation is transferred to the system, which is evinced in the accession of rigor, restlessness, watchfulness, anxiety, and the future progress of febrile symptoms. The pulse becomes at first quickened, afterwards hurried; the skin is dry and hot, especially on the belly; the face, though generally pallid, appears occasionally flushed, as if under the influence of hectic fever; respiration is quickened, and soon becomes laboured; the head is attacked with pain, which is continually upon the increase, until it ends in delirium; (sometimes the pain in the head is described to be of the pulsatory kind, resembling the tick of a clock); the appearance of the tongue is variable; sometimes it is dry, white, and furred; at others, it is dry and red; the eye, at first, assumes a glossy, and afterwards a languid appearance; the stomach is nauseated, and rejects the fluids taken into it, which are quickly altered in appearance and taste; if the secretion of milk has been established, it gradually declines until it at length disappears. The lochial discharge,

which, for the first day or two, was sanguineous, becomes sanious, watery, and offensive to the smell ; and in hot weather, especially, this offensiveness is so considerable, as sensibly to affect the lying-in room. Under the progress of these alarming symptoms, the state of the intestinal canal is uncertain ; sometimes the bowels are confined, and demand the assistance of active purgatives ; more frequently, they are spontaneously evacuated, and the appearance of the evacuations is rarely natural ; the uterine, when not tinged with the lochial discharge, is high coloured. These dangerous symptoms progressively increasing, the general strength is exhausted, the pulse becomes quick and tremulous, the belly swells and is painful, the countenance is dejected and anxious ; the patient is restless, tosses suddenly from side to side, throws her arms about, and is almost constantly under the influence of delirium ; the foecal evacuations and uterine are involuntarily excluded, and death closes this melancholy scene, within a week or ten days after delivery.

The latter period of the preceding symptoms, assumes the character of those met with under the last stage of typhus. They differ materially, however, from that disease in having their cause originating and continuing in uterine irritation, from the presence of a putrifying extraneous mass. If the retained portion of Placenta should fortunately be excluded, the symptoms immediately begin to decline, and the patient shews signs of recovery.

In other instances, the symptoms of local and general irritation are of a milder and more chronic description ; the patient appears to be extremely

unwell, rather than dangerously ill, and continues under a state of uncertainty for some days, or even weeks ; but at length they gradually wear off, and the patient in time gets well. Under such a state, I have several times remarked, that a puriform discharge, void of any unpleasant smell, has daily issued in considerable quantity from the Vagina ; which I have suspected to be furnished by the vessels of the inner surface of the Uterus, as a sequel of inflammatory irritation. This discharge is not attended with any increase of pain. After its appearance the patient has considerably improved.

I have already hinted, that, in every instance of disrupted Placenta, the patient has to encounter considerable risk from the accident. If she escape the immediate consequences of flooding, she will have to contend with subsequent symptoms, arising from irritation and absorption, the progress of which is not under medical control. But when these symptoms take place early, the case proceeds with great rapidity, and the powers of the constitution soon give way.

I have seen several instances of this rapid progress in very hot weather ; but I do not feel myself authorised to assert, that the weather induced the rapidity, or exerted much baneful influence. The heat was certainly very annoying, and produced much complaint. I mention the fact, without, at present, drawing any inference from it. Some of the symptoms may, perhaps, be attributed to the absorption of putrefactive animal matter from the surface of the Uterus ; and such a state of weather may be

supposed favorable to the furtherance of the process of putrefaction.

The case, being the offspring of ignorance or mismanagement, ought never to happen, and will not occur under common caution. But when it has actually happened, after the failure of the first attempt to remove the broken and still adherent portion, any farther manual assistance is inadmissible. The patient must be carefully watched from day to day, and the access of any particular symptom counteracted, as it makes its appearance. If considerable hæmorrhage ensue, the acid tonics may be usefully prescribed for its restriction, and recourse may be had to cold applications. If there be a frequent and active recurrence of after-pains, I should not attempt to counteract their effect by large doses of opiates ; I would rather allow them their full scope, in the hope that uterine action may expel the adherent mass. The febrile symptoms may be combated by means of salines and antimonials ; but, in the exhibition of the latter, care is required, lest nausea be unnecessarily excited. The stomach is commonly too much disposed to reject its contents. Under this state, the saline draught in effervescence, with small doses of sulphate of magnesia, produces temporary relief. In the latter stages, bark, camphor, and such medicines may be thought advisable ; I have never seen them serviceable. There are always too much heat and arterial action to allow of the free use of wine. The bowels must be regulated, as their particular state may require ; purging, in the first instance, may seem serviceable ; in the latter

stages it is injurious. Attention to cleanliness in the personal and bed-linen, becomes absolutely indispensable : indeed its necessity is sufficiently pointed out by the smell of the discharges. The Vagina may be occasionally washed out with some appropriate lotion. I think that some advantage may be derived from the frequent injection of some moderately astringent fluid into the Uterus, not only in the more advanced stages, but in the more early ones. As this practice, however, is not, in this country, a common operation, it cannot be left to the care of the nurse. If peritonæal affection shew itself, leeches may be safely and usefully applied to the belly. Under the chronic and more protracted cases, bitters and tonics may be prescribed with advantage. Upon the whole, if the natural powers refuse their assistance, the means of art prove of little avail.

While I am discussing the subject of Disrupted Placenta, I will beg the reader's permission to call his attention to an occurrence, which, though of little importance in itself, may be magnified and misrepresented by an ignorant or prejudiced nurse, with a charge of negligence or misconduct, to the injury of individual character. When the Placenta is withdrawn, a portion of its attached membranes will occasionally, under the greatest care and attention, be separated, and be left in the Uterus or Vagina, without any future detriment to the patient. It either wastes away insensibly, or it passes off unobservedly ; it may, however, in a day or two, hang out of the external parts, and leave a suspicion that all is not right ; upon due enquiry, the matter is satisfactorily explained. But the occurrence, to

which I more particularly allude, is produced by the reception of the sanguineous discharges from the Uterus, within the separated portion of membranes, which coagulating, and from time to time acquiring bulk, are at length passed off as a mass of variable size, and are ultimately expelled by contractile effort. Upon an ordinary inspection of this mass, from its being covered with membrane, and from its solidity, it may be deemed to be a portion of the Placenta now passed, which had been broken off, and left behind : and such an imputation will be highly detrimental ; but upon a more close examination, and especially if it be soaked in water, its nature will be discovered, and its harmlessness evinced ; the membranes may be easily unfolded and separated, and the coagulum included within them exposed. These masses are generally disposed of and put away as soon as they are passed, so that an inquiry into their composition is too frequently denied ; and any imputation thence arising, must be allowed to pass over without being sufficiently cleared up.

CASE XXX.

A portion of Disrupted Placenta, naturally thrown off.

ABOUT the middle of the day of Friday, July 5th, 1811, I was requested to visit a poor woman in the neighbourhood of Coleman-street, who had been

delivered of the child about an hour, but the Placenta remained behind. I obeyed the summons, and met a young gentleman in attendance, who informed me that the Placenta was retained, and that he had attempted to introduce his hand into the Uterus, for the purpose of bringing it away, but had failed. Upon my making an examination per vaginam, I could discover a small portion of the Placenta without the Os Uteri, and the Uterus itself to be well contracted. As there was no flooding, and as the woman had suffered from the preceding attempts to remove the Placenta, I requested she might be allowed to remain quiet for some time. I saw her again in a few hours, when she continued in nearly a similar situation. I repeated my visit about ten in the evening, and found her much as before. Though there was still no immediate danger in the case, it appeared desirable to get the Placenta away ; but the woman resisted every solicitation, in consequence of the pain she had previously suffered. An opiate was then given.

The next morning my young friend called early, and being allowed to make an examination, he found the Placenta somewhat lower, and applying some extractive purchase to the cord, he brought away the greater part of the Placenta, leaving a portion of the mass behind in the Uterus. On the Monday following, this portion was spontaneously thrown off, without the intervention of any bad symptom.

CASE XXXI.

Fatal Case of Disrupted Placenta.

LATE in the evening of the 17th June, 1807, I was requested to see a poor woman, in the neighbourhood of Lower Thames-street, under a state of flooding in her second lying-in: I was given to understand, that she had gone through a natural, and rather a quick labour, a few hours before, and that, soon after the birth of the child, considerable hæmorrhage took place, which induced the removal of the Placenta, but that, in the attempt to effect this removal by the Funis, the mass of the Placenta was broken, and a portion of its substance left behind. Since this occurrence the hæmorrhage had been profuse, and had continued so nearly to the time of my visit, when it had much abated through the assistance of cold applications. I found the patient suffering principally from the effects of its violence, with a pallid countenance, complaining of great faintness, and feeling, to use her own expression, "as if she could not keep life within her." The Placenta was shewn to me, and there was evidently one-sixth or one-eighth of its substance and membrane wanting; it otherwise appeared entire, with some part of the membranes attached. The nature of the case was therefore pretty clear. On applying the hand to the lower part of the abdomen, the ute-

rine tumour was felt tolerably well contracted under the hand ; there was also a disposition to an increase of that contraction in the occasional return of after-pains. On an internal examination, coagula of some size were felt in the Vagina, and the Os Uteri was closed, thick, and rigid. Under this state of things, I did not deem it prudent or advisable, to make any manual attempt to remove that portion, which was in this instance, in all probability, still adherent to the Uterus ; being fully satisfied in my own mind, from the degree of contraction which had already taken place in the Uterus, that such an attempt would be unsuccessful and unavailing. Indeed, under circumstances less forbidding, the uncertainty of the woman's present situation would not have allowed such an attempt. The exhibition of such palliatives, as the case seemed for the present to require, was only directed for the night ; viz. an occasional small dose of opiate, with infusion of roses.

On the 18th, in the morning, the poor woman had considerably revived from the depressed state under which she was suffering the preceding night, yet the countenance sufficiently evinced the loss she had sustained ; she had got some sleep at intervals during the night, which had been interrupted by the occasional returns of the after-pains ; her pulse was now moderate, both in number and strength ; the tongue was whitish ; she had passed urine ; the Uterus felt tender on pressure, and the lochial discharge flowed naturally.

On the 19th, the symptoms were not less favorable ; the secretion of milk had already taken place in the breasts, to which the infant was repeatedly

and successfully applied. An opening medicine was this day given, which operated kindly and satisfactorily.

On the 20th, the patient was not so well as on the day preceding; she had been restless in the night, and was disposed to be feverish; the pulse had quickened, with head-ache, and heat upon the skin; the secretion of milk was still freely continued; the lochial discharge was plentiful, but more watery than usual at this period, and not entirely free from unpleasantness of smell. Medicines of the usual anti-febrile kind were ordered this day.

On the 21st, the symptoms were still less promising: the patient complained of a constant pain in the head, with a sense of giddiness, on attempting to raise the head from the pillow; the pulse was considerably quickened, with an increase of heat on the skin: the secretion of milk was plentiful, but the lochial discharge was trifling. A small coagulum was this day passed, with some stringy particles attached to it. The bowels had not been relieved since the operation of the opening medicine on the 19th; a similar dose was, therefore, this day repeated.

On the 22d, the patient was found in every respect much worse; she loathed her nourishment, complained heavily of her head, and appeared, from the whole of the symptoms, to be rapidly advancing towards a high state of danger. The operation of the dose of the opening medicine given the preceding day, though before mild, had been excessive, and seemed to have produced considerable exhaustion. About four in the morning, a violent rigor took place, which was followed by a quickness of

pulse, heat upon the skin, thirst, and a white dry fur upon the tongue : an anodyne absorbent was *pro tempore* exhibited.

On the evening of the 22d, the patient was becoming extremely restless, with occasional low delirium and an indisposition to lie down in bed ; the pulse was small and rapid, and the general symptoms upon the increase : the application of the hand to the belly discovered no marks of paritonæal affection. The saline draught in a state of effervescence was occasionally taken.

On the morning of the 23d, the poor woman had passed a most restless night, having procured no sleep whatever, and incessantly tossing about in every direction, with a lamentable moan. The febrile symptoms and the delirium continued ; the bowels were purged, and the general strength was rapidly diminishing. Medicines and food were equally refused. A blister was applied to the nape of the neck, and an opiate injection frequently repeated. Another large coagulum was passed this day.

In the evening she was evidently worse ; being perfectly and constantly insensible, and incessantly picking at the bed clothes. I found her sitting up in bed, and no persuasion could induce her to lie down : the pulse was becoming languid, and the extremities cold : she positively refused all nourishment. In the course of the night she had several convulsion fits, and died the following day, seven complete days from her delivery !!

CASE XXXII.

Fatal Case of Disrupted Placenta.

ON Thursday, June 4th, 1818, my attendance was requested upon a young woman, in Shadwell, who had been delivered of her first child, on the Monday preceding, and who was stated to be dangerously ill under her confinement. I was met by a professional friend, who informed me that his patient had a natural labour; after the birth of the child he had waited some time for the separation of the Placenta, but was at length under the necessity of introducing his hand for its removal; that he had not been so successful, as he could have wished, in the operation, the free action of the hand having been impeded by the contraction of the Uterus; and that the mass of the Placenta was broken in the attempt, some portion of which was left behind attached to the Uterus. On the two following days the young woman was very unwell, complaining of occasional pains in the belly, with febrile symptoms, head-ache, and want of sleep; there had been, at the time of my visit, little lochial discharge, and no appearance of lactary secretion. I found our patient under a state of high irritation, with a pungent heat upon the skin, a rapid pulse, exceeding one hundred and fifty strokes in the minute, and a parched tongue; with quick respiration; incessant restlessness; dejectedness of coun-

tenance, and a constant pain in the head, with a wandering low delirium. There were also occasional sickness, and rejection of fluids taken into the stomach. The bowels had been relieved by opening medicine. Pain was produced by making a regular pressure with the hand on the abdomen; but no complaint of pain in the belly was made, without the pressure of the hand; the pain was also confined to the uterine tumour. No refreshing sleep had been procured since the delivery; there was at this time little uterine discharge, and that little was offensive to the smell, and altered in its usual appearances. It resembled water tinged with blood. The weather was at this time uncommonly hot, for the season, so that the heat was a source of great annoyance, and produced an aggravation of suffering. The saline draught, in a state of effervescence, with small doses of sulphate of magnesia, was prescribed at short intervals, and an opiate at bed-time; an evaporative lotion was also occasionally used to the belly.

On the 5th, our patient remained in nearly a similar state: she had passed a bad night, was still restless, with occasional wandering of the mind, and seemed to be strongly impressed with the danger of her present state.

At my visit on the 6th, I was told that some natural uterine discharge had made its appearance, and that during the night, which had been passed without sleep, a recurrence of pain had taken place, by which a portion of the Placenta had been thrown off, in a putrid offensive state. The symptoms, this morning, seemed to be somewhat alleviated. The bark in decoction was now prescribed.

As there seemed to be a little improvement this morning, the friends of the poor woman gave me to understand, that they would not trouble me to see her again, but would apprise me of the progress of the case ; I received information on the 8th, that my patient breathed her last during the night of the 7th.

CASE XXXIII.

Vascular portions of Placenta left in the Uterus.

ABOUT the middle of the forenoon of Monday, November 23d, 1818, a respectable professional gentleman called upon me, and requested me to see a middle-aged woman, in the neighbourhood of Finsbury-square, after her fourth labour, who had been suddenly placed under distressing and dangerous symptoms. My friend informed me, that the child had been born about two hours, and that in attempting to remove the Placenta, which was unfortunately adherent to the Uterus, he had broken its mass, and was apprehensive it was not all got away. Without loss of time I accompanied him, and upon visiting the patient, I found her under a state of great faintness and exhaustion, partly from the loss of blood she had sustained, and partly from the pain she had already experienced, in the almost fruitless efforts, which had hitherto been made to remove that portion of the Placenta which had been broken off, and which remained still attached to the Uterus. Upon

carefully examining the general mass of the Placenta which had been extracted, I observed a considerable portion of its centre absent; but of this portion, some trifling particles had been taken away in the subsequent attempts to remove it. The hand had been repeatedly introduced into the Uterus for this purpose, and had been almost as frequently unsuccessfully withdrawn. Being desirous of procuring as accurate a knowledge of the state of the case as possible, I introduced my left hand into the Vagina, and two fingers within the Os Uteri: upon doing this, I was satisfied that the Uterus was then so much contracted, as not to admit the introduction of the hand, for any purpose, without a great degree of violence; and, on a more minute examination of the uterine cavity by these fingers, the remains of the Placenta were distinctly perceptible to the touch, hanging down in filamentous particles from the uterine surface, (somewhat like cobwebs from the vaulted roof of a dry cellar,) which were not under the control of removal by the mere power of the fingers.

Having suffered so much pain from the previous attempts which had been already made, the woman earnestly begged to be left quiet; and, indeed, had I been disposed to offer any manual assistance, with the view of removing the portions left behind, I saw no possibility of effecting that object successfully. Any further efforts were therefore declined on my part. A proper dose of opiate was for the present directed, and to be occasionally repeated, and perfect quiet enjoined, with a due attention to regimen. I inquired whether this woman had received any in-

jury, or had suffered any inconvenience during her pregnancy ; and was informed, that for some time previous to her labour, she had been troubled with a constant pain on the left side of her navel, to which part, the after-birth seemed, in her idea, to be fixed.

On the 24th, our patient had considerably recovered from the exhausted and painful state of the preceding day, and seemed to be as well as if none of those unpleasant occurrences had happened. The pulse was moderate ; the skin soft and cool ; the head free from pain ; the countenance was somewhat pallid, but it had regained much of its usual appearance ; she had enjoyed some natural and refreshing sleep ; had passed her urine freely ; had suffered no unusual degree of after-pains, or of lochial discharge ; and merely complained that the application of the child to the breast induced a more than ordinary pain in the back.

The same favourable symptoms continued on the 25th, with the exception, that the woman had not passed so comfortable a night, and that the lochial discharge was becoming somewhat sanious and offensive. There was likewise no secretion of milk in the breasts. An opening medicine was given this day, which operated gently.

From the 26th to the 28th, an irritating cough produced much inconvenience ; the efforts attending it excited pain in the belly, and in the head. There was still no appearance of lactary secretion ; but on this day a puriform discharge began to issue from the Vagina in considerable quantity. The bowels were relieved by laxatives, and a tonic prescribed.

From this time, I saw the patient only occasion-

ally : the puriform discharge continued for a fortnight, gradually diminishing in quantity, but the secretion of milk was never established. No further unpleasant symptom appeared, and the woman, in about three weeks, recovered a tolerable state of health.

CASE XXXIV.

A portion of Disrupted Placenta thrown off fifteen days after delivery.

EARLY in the morning of the 19th of March, 1819, I was called to a patient of the charity, in Thrawl-street, Spitalfields, who had been delivered of her child more than two hours, but the Placenta was not thrown off. Before my arrival, she had flooded violently, and the midwife, in attempting to extract the Placenta by the Funis, had improperly used such violence, as to separate the Funis, with the greater part of the membranes, and a little of the Placenta, from the general mass. The woman appeared in a dangerous situation, and, in this dilemma, I had to remove the remainder. I immediately introduced my hand, and used my best efforts to separate it; but the degree of adhesion was so strong, and the difficulties I had to contend, so great, partly from the adhesion, partly from the absence of the Funis, and partly from the degree of contraction, that I did

not succeed so well as I could have wished : the Placenta was brought forth piece meal, and I suspected, at the time, not entirely removed. This poor woman went on pretty well for several days, but at length had febrile symptoms, with pain in the head. These symptoms increased my suspicions, that some part of the Placenta was left behind. On the 4th of April, fifteen days after her delivery, she passed a small portion of the Placenta in a putrid state, after which event she rapidly recovered.

CASE XXXV.

The Placenta thrown off entire, after four weeks between the fourth and fifth month of pregnancy.

ABOUT five p. m. Thursday February 24th, 1820, I was called into Primrose-street, Bishopsgate, to visit a lady under uterine hæmorrhage. I found her countenance pallid and exsanguined ; her pulse small and quick ; her extremities cold; indeed, she was suffering under all the symptoms of great and sudden loss of blood. This lady had miscarried of the fœtus four weeks before, between the fourth and fifth month of pregnancy, but the after-birth had not come away. In the interval, she had been the occasional subject of considerable discharge, which had continued a few days, and then ceased ; but, for the last three or four days, it had been constant. About two this day, the

flooding had come on with increased violence, and was still continuing with occasional pain, as if something was about to be expelled. I used no manual means of relief, I merely recommended a continuance of cold applications already in use; and acids internally. In the evening the Placenta was thrown off, in as fresh a state, as if it had followed the foetus immediately. After this event, the haemorrhage subsided, and the patient gradually recovered her wonted health.

This case furnishes us with an instance of the Placenta remaining in the Uterus, after the premature expulsion of the foetus, for the space of a month, without undergoing the common process of putrefaction; or without inducing any dangerous symptoms, except those consequent upon haemorrhage. Such an occurrence does not happen at the full period of gestation: to what cause, then, are we to attribute the fact? The foetal circulation through the Placenta ceased with the expulsion of the foetus, as well as the process of growth. The powers, then, which this mass possessed of resisting the putrefactive process, could only be derived from the influence it received in its adhesion to the Uterus, and in the maternal circulation through its cellular structure²⁹.

29 [Cases similar in period, do not always terminate as here described; the placental mass very often becomes extremely offensive, even in a few days. When it does not, it justly challenges our surprise, and but too severely taxes our ingenuity; and is perhaps totally inexplicable, unless we admit the conjecture of our author. It would be an improper confidence in most cases, to rely upon the probability of similar exemption from risk; when such cases have of late occurred in our hands, we have in several cases solicited the expulsion of the mass, by the exhibition of the ergot, with the happiest effect.—A.M. ED.]

ON

**RELAXATION OF THE UTERUS AFTER
DELIVERY,**

AND ITS SUBSEQUENT ENLARGEMENT.

AS I have already hinted at this subject, I will here briefly consider it. Those contractile efforts, by which the last portion of its gravid contents is expelled, usually leave the Uterus in a state of permanent contraction, which seldom admits of much subsequent relaxation and enlargement; and the returns of the temporary contraction, evinced in the accession of after-pains, tend still farther to increase this permanent state, and gradually to diminish, more and more, the size of the uterine tumour. During the presence of after-pain, the Uterus is more firm, and resistent: during the absence, it feels flaccid and softer, yet it is not sensibly much extended in volume. But it sometimes happens, that after the Uterus has expelled its contents, after it has seemed to the hand to have acquired a considerable share of contraction and of diminution in size, it suddenly relaxes, and becomes larger and more flabby; it increases in bulk and extension in

every direction. At the time this increase of size is going on, or shortly after, the patient complains of faintness ; her countenance loses its colour and its usual appearance ; her pulse becomes quicker and smaller, and she has other symptoms of depression. On examining the napkins and linen, a very trifling discharge of blood is found to have taken place externally, which leads to the belief, that the patient is not then losing much blood ; and, therefore, little alarm is excited from this obvious loss : but if this security be indulged without farther, and more minute enquiry, if the case be not understood, the patient will soon be placed in a situation of danger, from which, she will with difficulty be extricated. If, at this time, the hand be applied upon the abdomen, and such a degree of grasping pressure be made on the uterine tumour, as shall produce some contraction, or if uterine action spontaneously come on, a quantity of coagulated and fluid blood is immediately expelled, which leads the patient to suspect that she is then flooding, and she generally expresses such suspicions, with much anxiety for her safety. After such an evacuation of blood, the uterine tumour lessens in bulk, and becomes firmer under the hand. As long as the pressure of the hand is continued, or in case the frequent repetition of natural contraction ensues, the Uterus retains a diminished bulk : but upon the pressure of the hand being removed, or if repeated returns of after-pains do not take place³⁰, the same occurrences are renewed, the

30 [We must here repeat our dissent from this statement—we noticed this subject in Note 9th, and we are as fully convinced as we are of any one fact

uterine tumour assumes less firmness, and again increases in size; the sensation of faintness also returns: upon external pressure being again made, a similar evacuation is the consequence. These occurrences may be repeated, till either the Uterus attains a more perfect and permanent state of contraction, whereby its subsequent distension, and the further efflux of blood from its vessels are prevented, or till the woman sinks from loss of blood.

The true state of the case is, that blood is slowly pouring out of the uterine vessels into the general cavity, which coagulates as quickly as extravasated. These coagula plugging up the Os Uteri, prevents the escape of any considerable quantity of even fluid blood, and their gradual accumulation at length mechanically distends the flaccid Uterus. This, therefore, is truly a case of internal flooding. The only difference existing between it and one of external hæmorrhage is, that in the former, the loss is not seen; it is frequently unsuspected, till the rapid advance of unfavorable symptoms loudly proclaims it. The small quantity of blood which does escape externally, is not sufficient to excite alarm, or even a suspicion of danger: whereas, in the latter, the quantity lost is immediately discovered, and the means of obviating its effects are as readily adopted.

This unpleasant occurrence is met with as a sequel of different kinds of labours. It occurs in women of

in Physiology, that the painful contractions of the uterus never take place while the uterus is in a state of atony. Nor are they, *considered as pains*, in the slightest degree contributable to tonic contraction. This, power is totally independent of painful-contraction, and may exist for days together without its manifesting itself; but, in our opinion, the latter never takes place without the former.—AM. ED.]

a lax, flabby habit, in whom there is a disposition to corpulency, with a delicacy of fibre ; in some instances, after such a woman has borne a number of children, and has probably had, for the present, a quick and easy labour ; in others, after a lingering labour, under, perhaps, a first child still-born, during the expulsion of which, uterine energy has been much exhausted. It sometimes happens after a difficult labour, in which a similar state is induced by the long continuance of the uterine efforts : but it may take place in any kind of constitution, after any description of labour, if there remain, after delivery, an indisposition, in the Uterus, to strong contraction ; if a relaxed state of the uterine parietes long continue after the removal of the Placenta. I do not mean to assert, that this is a case of very common occurrence ; it is however by no means an unfrequent one ; it may readily be unsuspected ; it may easily be overlooked, even by men of experience ; and as, if it be overlooked, if it be allowed to proceed to any extent without being observed, the life of the patient is rapidly endangered, it forms one of the most interesting cases of practical midwifery. The progress of the alarming symptoms is usually so rapid, as to preclude the timely advantage of a consultation, and to oblige an accoucheur to depend on his individual judgment and exertions ; and there are few instances, in which the beneficial effects of early and attentive observation, and of judicious practice are more apparent than in the case before us.

The degree of present or future danger is not in proportion to the quantity of coagulated or of fluid

blood, evacuated by the pressure of the hand, or by spontaneous action of the Uterus ; but in proportion to the quantity still flowing out of its vessels, in the absence and for want of its permanent contraction. The blood thus expelled, may have been very gradually extravasated, and may have been accumulating for some time past, though the general effects thereof may not yet have shewn themselves : but if, along with this obvious external loss, which now appears, a further discharge be still proceeding internally, and if it continue, the patient will soon shew evident marks of its effects in symptoms of general depression and alarm. The extension of the uterine parietes by the contained blood, adds to the increase of danger in the removal of that contractile effort, by which the extremities of the uterine vessels are closed, and by which their diameters are lessened : so that under this extension, the velocity of the loss is materially increased. Hence, after a short time, arises the rapid advance of the symptoms. On the other hand, spontaneous uterine action, or after-pains, is always salutary ; it is ever highly satisfactory ; it expels the extravasated blood then contained within the Uterus, which, by its presence, is adding to the mischief ; and by naturally diminishing the size of the uterine tumour, and producing permanent contraction, it tends to prevent a farther eflux. The extreme despondency felt by the patient soon induces a strong presentiment of her dangerous situation, and exclamations on that subject almost involuntarily escape her lips : such expressions as, "*How ill I am !*" "*I must die !*" painfully depict her feelings.

I am disposed to suspect, (yet, I must be allowed to observe that it is mere suspicion, for I have not been able to obtain positive evidence of the fact,) that it was an insidious case of this dangerous kind, which bereft this nation of an amiable and beloved princess, the pride of her sex, and the ornament of her country : which blasted its fondest hopes, and which produced a general scene of deep and unaffected mourning at the unexpected event. Danger was even transferred from this melancholy case to others ; the shock sustained by many women towards the close of pregnancy, on the distressful communication, shed a baneful influence on the process of parturition in their several instances.

This case, from the universality of the interests connected with, and merged in it, independent of its self-importance, has excited more discussion than any other in the annals of medical history : yet the points upon which its fatality hinged, appear to me to have not been generally understood ; at least, they have not been satisfactorily explained to my mind.

I will suppose that the eminent accoucheur employed on the occasion, (for eminent he was, and well acquainted with his profession, notwithstanding the calumnious imputations unjustly cast upon his memory,) upon the expulsion of the head after such a tedious labour, not observing the usual signs of life, in his great anxiety to save, if possible, a babe of such value, to use the speedy means of resuscitation, and of restoring suspended animation from pressure, used some extractile efforts to hasten delivery, in the absence of uterine action. I say, let me

suppose such assistance to be offered with the most honest intention of faithfully discharging his professional duty, and of omitting no exertion likely to preserve a life of such incalculable importance to the country, in what situation would the Uterus be left, after the exhausting efforts of such a labour, and in a constitution naturally unable to resist its debilitating effects ?

But let me suppose further, that after the birth of a still-born infant, there was a disposition to hæmorrhage, (the natural result of a want of uterine contraction at the time of birth, or of continued inaction,) which called for an earlier and more speedy removal of the Placenta than usual. Now, if uterine inactivity continued after this event, the foundation of the calamitous mischief would be laid. After the Placenta had been withdrawn, I will suppose the royal patient to be made as comfortable as her situation would admit, and that, for the present, there was no dangerous symptom ; that perfect quiet was enjoined ; that, under the certain impression of her safety, her wearied attendant retired ; and that she was left to the care of the nurse, who was almost as much exhausted as her royal mistress. Alas ! how soon did the scene change ! How rapidly did the promised hopes of safety prove completely fallacious ! Instead of finding in the shades of oblivious sleep, that consolation and refreshment which at this moment were so highly desirable, the balmy blessing was denied to her eye-lids ; a slow, constant, but unobserved escape of the vital fluid proceeded ; she appeared, for a time, still, but it was because she was

incapable of motion. After a time, the royal patient became restless, and breathed with difficult frequency; the nurse was alarmed; the medical attendants were summoned; but too late to restore the purple torrent to its wonted channels: they met merely to witness the departure of her gentle spirit from this vale of mortality, to Him who gave it. By the religious enthusiast, who refers every sublunary transaction to the temporary interposition of Providence, and, perhaps, by him also who considers the marriage vow sacred, and who faithfully discharges the duties it imposes, this loss of an only daughter and her infant, may possibly be attributed to its chastening interference for marital estrangement.

Fortunate would it have been for the family and friends of that celebrated accoucheur, if the mischief had here ceased; but he was assailed by the shafts of calumny and malice, and was even charged with ignorance and neglect. This treatment he did not deserve from that liberal profession of which he was so distinguished a member, and which ought to have protected and supported him; his indignant spirit could not brook this insulting treatment: he allowed it to prey silently upon his mind, till it produced that alienation which terminated in a disastrous self-destruction. What a melancholy result! That case, which, *in prospectu*, but a short time before, seemed to promise the fairest advantages, and if it had gone on well, would certainly have been the stepping-stone to wealth and honour, proved the sudden bane of a well-earned fame and reputation, and scattered misery through a deserving family!!!

But to return to our subject: the preceding history

of the relaxation of the Uterus, explains its rationale, and also points out the objects to be attained in its management. As it originates in the deficiency of that contractile effort, by which permanent contraction is produced, the grand point of attention ought to be directed to perfect it, or to supply its defect, by means of art. With this intention, apply the hand externally on the uterine tumour, enclose it firmly within the grasp of the hand, and gradually make a firm compression. This practice seldom fails to reduce its size, and to bring on an increased degree of contraction. The external application of cold may also be useful. Ices and cold fluids may be taken at pleasure. Little reliance can be placed on the effects of astringent medicines, yet they may be properly resorted to³¹. Stimulants, under certain limits, are given with much advantage. If these means fail, the introduction of the hand within the Uterus ought not to be deferred; this is a dernier resort to remove the coagula there accumulated, and to induce uterine action³².

31 [This remark is strictly true when applied to certain of the astringents; but we should not include in this censure the sugar of lead; and the ergot, although not an astringent, may advantageously be given. Both of these substances have been exhibited with the most prompt and decided advantage—but, it is true, they should never be exclusively relied upon—they must be regarded as merely auxiliaries where the danger is imminent. See Note 20.—
AM. ED.]

32 [We have always opposed a temporising treatment in cases of this kind. If, after the exhibition of the remedies noticed in our last note, together with steady and persevering friction over the region of the uterus, we do not find a *considerable abatement* in the discharge, with a strong probability of its being permanent, as far as this can be determined by the reduced size and firmness of this organ, we proceed forthwith to remove coagula and stimulate the uterus by gently passing the hand and fingers over its internal surface. It is decidedly wrong to permit the woman to be too much exhausted before this is had recourse to, especially as no possible mischief can result from it, if it be judiciously performed, and it may insure much positive good.—AM. ED.]

It ought not to be forgotten, that in proportion to the degree of depression induced by a sudden or large loss of blood, the Uterus becomes more and more incapable of effecting its spontaneous contraction, so that the cause which is so strongly operating towards the destruction of the patient, is alarmingly progressive, unless timely counteracted. If the introduction of the hand become necessary, it should be retained till uterine contraction be felt; and if the hand be almost expelled, the better for the patient.

During this time, stimulants become highly necessary, and almost universally produce the most beneficial effects; but their use must be omitted as soon as the patient begins to improve³³.

Even after a due degree of uterine contraction has been brought about, the patient is commonly left in a very uncertain state from the preceding loss. The means elsewhere recommended are equally appropriate to the consequences of uterine hæmorrhage from this cause. I need not therefore repeat them.

33 [We should strictly attend to this direction, as already intimated in Note 21. But the patient may derive much advantage from a grain or two of opium, or a corresponding quantity of laudanum.—We would suggest here the use of a little vinegar with the opiate, if the stomach be sick, or is wont to become so by the use of it.—AM. ED.]

CASE XXXVI.

Internal Flooding, after Delivery.

ABOUT four in the morning, of the 11th of October, 1818, I was called in a hurry to the wife of a professional man in the eastern district of London, who was represented to be in a state of great alarm after delivery. The child was expelled about one, under the superintendance of her husband, in a still-born state, from pressure upon the Funis, which had come down before the head. Soon after the birth of the child, a flooding came on, which induced the husband to withdraw the Placenta from the Vagina : he effected it without any particular trouble. The discharge continuing in a slight degree, the lady presently became low and faint. A neighbouring professional friend was called in about two, who recommended the use of cold applications, and the exhibition of acids. The flooding continuing, and the lady getting worse, my assistance was requested. On visiting the lady about the hour abovementioned she was very much sunk indeed : her countenance was exsanguined and anxious ; her pulse was fluttering, so as scarcely to be perceptible ; she had a constant sense of faintness, with involuntary sighing and frequent eructations ; the Uterus was flaccid and ill-contracted, and there was a constant draining of

florid fluid blood from the Vagina, which had continued since the delivery. I grasped the Uterus firmly within my hand, so as to lessen its volume, and immediately the discharge was momentarily increased, and some coagulated blood expelled ; upon taking off the pressure of my hand, the Uterus relaxed and became flaccid ; I then compressed it with a similar effect. This was repeated several times, when the lady at length exclaimed, “ For “ Heaven’s sake, keep your hand there, or I shall “ die.” I remained in that situation, my hand compressing the Uterus, till near eight in the morning. The Uterus had not, till that time, acquired such a degree of permanent contraction, as to allow me finally to remove my hand with safety.

During this interval, brandy, with water, was occasionally given, and also some nourishment. The flooding had now ceased, and she began to rally. Between eight and nine, she became composed, and went to sleep : she slept for a short time, and awoke refreshed. From this time she gradually recovered.

If external pressure had not, in this instance, produced a more permanent contraction of the Uterus, I should have thought it my duty to have introduced the hand into its cavity. External pressure, for the moment, increases the discharge, so that the patient is alarmed ; but the blood which is then expelled, is only that which is already extravasated in the uterine cavity : it does not add to the general depression. The return of after-pains is, in such cases, one of the most desirable events : we have usually but trifling after-pains. Though the pressure of my hand gave this lady pain, she felt such a degree of comfort

and satisfaction under it, that she was extremely unwilling it should be removed ; and even the attempt to remove that pressure, impressed her with the idea of withdrawing a support, from which she was receiving great benefit. The effect produced upon the faintness by the grasping compression of the hand was in this case truly remarkable. The lady had taken medicated stimulants of various kinds without feeling any advantage, but the manual compression instantly relieved it.

CASE XXXVII.

Internal Flooding, after Delivery : Fatal.

ABOUT four in the morning of July 23d, 1819, I was sent for in a great hurry to Tower-street, by a professional friend, who was attending a lady in labour : she was represented to be under a state of the greatest danger. Her husband was the messenger, who took care I should lose no time. On our arrival at his house, the lady was just dead. She had been delivered of her first child after a common natural labour, about two hours and a half, and to all appearance with the greatest safety. The Placenta was separated naturally, and was withdrawn within the half hour : after a time she had a little more than usual discharge, but not to that extent as to attract particular attention. The state of the Uterus was not noticed :

she complained of being very unwell, so that my friend did not leave the house. A short time before the husband was dispatched for me, the lady was attacked with a pain at her stomach, followed by difficulty of breathing, and was rapidly carried off about a quarter after four. The body was not inspected. This, I suspect, was a case of internal flooding ; but I had no means of satisfying my doubts.

THE day following, July 24th, 1819, towards evening, a midwife sent to me to request I would open the body of a woman, who had very unexpectedly (to her) died about the middle of that day, soon after her delivery. The midwife had put the woman to bed, after a common labour, about eight in the morning, the Placenta came away without difficulty, and the woman was promising to do well. The midwife dressed the child, and staid in the house nearly two hours without observing any particular occurrence ; she put the woman comfortably into bed, and took her leave. Some time after her departure, the poor woman became faint, and afterwards very restless : these symptoms alarming the by-standers, the midwife was again called for, but upon her return, she found her patient dead.

Upon opening the body, the same evening, the Uterus presented itself long, flabby, and ill-contracted ; all the abdominal viscera were uncommonly sound and healthy ; on dividing the Uterus, it contained about a pound and a half of firmly coagulated

blood, a great part of which was lying upon, and in the Os Uteri, and some was adherent to the surface to which the Placenta had been attached ; the uterine parietes were flabby and loose. There appeared to have been very little external flooding.

This dissection gave me great satisfaction, and added much to the stock of information I previously possessed on this subject. I had seen numerous instances of women sinking under apparently slight external haemorrhage, after delivery ; some to a degree beyond recovery, and others recovering with difficulty.

These facts had long drawn my attention to the external state of the uterine tumour to the hand ; in several cases, I had observed the Uterus to relax and enlarge under this state of faintness, and upon external pressure being firmly made by the grasp of the hand, a quantity of coagulated and fluid blood was immediately evacuated : I thence concluded that blood was flowing into, and coagulating in, the uterine cavity ; and in this conclusion, I am strongly supported by this dissection. The quantity of blood here found in the Uterus appeared trifling, and insufficient to cause death. But besides the quantity absolutely thrown out into the Uterus, some fluid blood is escaping into the Vagina, and there coagulating ; or it is flowing externally, yet perhaps not to that extent as to cause alarm from its quantity. Though these quantities may be severally small, the whole loss may be large for the system ; and it is impossible, *a priori*, to judge what quantity of blood any given woman can lose without danger. I am not without my suspicions, that this relaxed state of

Uterus itself has a powerfully injurious influence upon the nervous and arterial systems.

The first time my attention was drawn to this case, was during a third attendance upon a patient at Hoxton, eight or nine years ago, who had passed through a lingering but natural labour. The Placenta had been thrown off, and was removed without difficulty, and I was about to leave the house, between eight and nine in the morning, when the patient requested me to stop a little longer, saying, she did not find herself quite so well as after her preceding labours ; and complained of being rather faint. I immediately inquired whether any flooding was going on, but found little discharge externally. I placed my hand upon the Uterus, and I was astonished to find it much more enlarged, than I had left it about half an hour before, upon extracting the Placenta : I made some compression upon it, and immediately a gush of fluid blood followed, and afterwards some coagulum. The lady then called my attention to the flooding. After a short time, she became more faint, and upon placing my hand again on the Uterus, I found it then enlarging, and a similar discharge followed compression. There was no disposition to after-pain. This tendency to uterine relaxation, accompanied with faintness, obliged me to keep my hand upon the uterine tumour, making more or less pressure, for nearly three hours, before I could perceive such a degree of permanent contraction, as to suppose her in a state of safety.

CASE XXXVIII.

Internal Flooding, after Delivery.

A SIMILAR instance occurred to a young lady in Wapping, after delivery of her first child in the beginning of December, 1817. The then recent and melancholy loss of the Princess Charlotte, had made a strong impression upon her mind, during the last weeks of her pregnancy, and she became dispirited and suspicious respecting the event of her own accouchement. Her own anxiety and that of her friends induced them to call me upon the appearance of the very first symptom of labour, so that after having spent two days and one night in the house, without much advance in the labour, I got leave to go home to procure some sleep, about twelve at night, and requested to be called when necessary ; at the same time referring to a gentleman in the immediate neighbourhood, in case of sudden alarm. About seven in the morning, the husband brought a coach for me, and we hastened to his house ; but during his absence, the pains increasing rapidly, my friend was called, who was merely in time to receive the child, and having withdrawn the Placenta, set himself down to breakfast below. Upon our entrance, my friend exultingly exclaimed, “ It is all “ over ; you are too late ; and your patient is doing “ very well.” I was somewhat mortified, and felt

regret, that after so long and unnecessary an attendance, the lady should be delivered in my absence : however, I went up stairs, and asking my patient how she felt herself, she answered, that she was very faint. As there was little discharge upon the napkins, my attention was drawn to the state of the Uterus : I found it large and ill-contracted ; upon compression, a quantity of blood escaped. The Uterus again enlarged ; and compression produced a similar effect. The lady was now very faint. I kept my hand upon the Uterus for more than two hours ; at the end of that time it seemed permanently contracted.

ON

COLLAPSE, AFTER LABOUR.

IN the absence of one more appropriate, I have adopted this word, to express a particular state of danger in which a lying-in woman is occasionally placed, soon after the birth of her child ; but especially, when her babe is still-born. It appears to me to consist in a want of accommodation of the several parts within the belly to each other, under the new situation in which they are placed by the abstraction of pressure.

How this occurrence may produce so dangerous an effect, it may be difficult to explain ; but as there is usually an insufficient loss of blood to account for the sudden impression made upon the system, it may be attributed to a baneful effect suddenly produced upon the brain and nerves. Be this as it may, I am fully persuaded that the mental shock which is now and then received upon the first communication, or even upon the surmise, of the infant's being still-born, has a most injurious influence upon the woman : nay, I think it has even a tendency to check the progress

of those changes, the perfection of which is so essentially necessary to her well-doing.

When those fond hopes, in which a lovely woman has been pleasingly revelling for months, are suddenly blasted ; when that pledge of mutual love, for the production of which she has just passed through the most distressing pangs of nature, is found to be lifeless, disappointment and anguish naturally succeed : a shock is given to the feelings, which, at this time of distress, under this delicate situation of the female frame, operates with increased force ; and I need scarcely allude to the powerful influence of mental energy on bodily function, at any time.

Shortly after the birth of the child, and the removal of the Placenta, when the woman has previously appeared to be doing well, she complains of unusual faintness : says, she is extremely ill ; at the same time she is unable to describe what is the matter with her. If inquiry be made into the state of the Uterus, that viscus is found to be tolerably well contracted : if inquiry be also made as to the quantity of blood escaping externally, that is not unusually large. The woman complains of no pain about the belly ; there is no mark of derangement there. Notwithstanding she rapidly gets worse ; the pulse begins to flag ; the countenance assumes a pallid cadaverous aspect ; she becomes extremely restless ; and ceases to express her feelings except by a moan. By and by, she is seized with a violent pain across the chest, and rapidly goes off, to the astonishment and grief of all around her.

The progress of these symptoms is usually so quick, as scarcely to allow time for thought, or ac-

tion : the fatal scene is terminated within two hours after delivery, and sometimes within one, after the first complaint is made. If this progress be retarded by the means used, or if after-pains happily shew themselves in an active manner, the symptoms begin to subside, the woman feels herself better, and in a few hours is placed in a state of complete safety.

As to the means of counteracting this dangerous state, I fear that the best efforts will frequently prove ineffectual. But I think that the great object to be aimed at is, to keep up the action of the heart and arteries, by the exhibition of strong stimulants, such as brandy and ether, in hopes of the restoration of a due degree of equilibrium in the system. If a truce be obtained, the woman will do well. At the same time, I recommend a proper degree of pressure on the abdomen, by the hand or otherwise. The return of the after-pains being so obviously useful, the application of a grasping pressure to the uterine tumour itself, may prove advantageous.

CASE XXXIX.

Unexpected Death soon after Delivery.

SOME time ago I was requested to take charge of the wife of a professional friend in her expected accouchement of her twelfth child. The lady was turned of forty, was in good health and spirits, and

somewhat *en bon point*. I was called to her assistance about seven in the evening, when the process of labour had made considerable progress, and soon after eight, the child was naturally expelled, but it was still-born. Some attention was immediately paid to the babe, with the view of restoring animation, but the best efforts proved fruitless. The lady repeatedly raised herself in bed to watch the success of the proceedings of myself and her husband, who was in the room offering his assistance also ; and she seemed much affected at the loss of the infant. Going presently to the bed-side to inquire after the Placenta, the lady complained of being rather faint ; I immediately examined as to the quantity of discharge, and found it moderate ; not more, indeed, than the lady had been accustomed to pass in former labours, or than is usual in common cases. The Uterus being well contracted, and the Placenta being expelled its cavity, and down in the Vagina, I withdrew it with ease, and with still little discharge. Notwithstanding this apparently favorable termination of the labour, the sense of faintness did not subside ; indeed it seemed rather to increase than to diminish ; yet the pulse was not, for the present, much affected. Brandy and water, and the medicated stimulants, camphor mixture and ether, were had recourse to, and, in the first instance, with some apparent advantage ; yet the sense of sinking never entirely gave way. The quantity of external discharge, and the state of the uterine tumour were closely watched, lest mischief might be silently going on there. In this way an hour and a half, or two hours, were spent after delivery, and the lady

seemed somewhat recruited. I left the house for a short time, under the impression that this lady was better: upon my return, in less than half an hour, I was grieved to find that, during my absence, the case had taken a most unfavorable turn: she had been seized with a sense of constriction across the chest, accompanied with difficulty of breathing; the pulse was scarcely to be felt; the countenance was sunk, and she soon expired, within three hours after her delivery, to the great grief and irreparable loss of a numerous and amiable family, and of a truly affectionate husband. The body was not inspected.

I could attribute the fatal result, in this case, to no other apparent cause than to a state of collapse after the completion of the process of labour; and I suspect that this state was increased by a desponding impression made upon the mind in consequence of the loss of the infant. Had I learnt that there had been a desponding impression upon the mind, previous to labour, my surprise would not have been so much excited; for I am well convinced of the fact, that the existence of a permanent despondency, during the latter stages of pregnancy, has a powerful influence in diminishing the beneficial agencies of those powers, by which the necessary and healthy changes subsequent to labour, are completed.*

* I beg to refer the reader to some cursory observations made by me on sudden death after delivery, inserted in the Medical Repository for 1814, and thence transcribed into the Medical and Physical Journal for August, 1814.

CASE XL.

Fatal Paralysis of the Oesophagus, succeeding to Labour.

ON the evening of Sunday, September 13, 1813, I was summoned to attend Mrs. ——, a delicate young lady, of lax fibre, and disposed to corpulency, in labour of her third child. I had attended her in her preceding confinements, through which she had passed favorably. She went quickly through her present trouble, with equal safety, in a few hours, and was promising to do well. After having remained in the house nearly an hour, and being about to take my leave, I was suddenly called up stairs, in consequence of the lady's complaining of faintness : I made instant inquiry into the quantity of discharge, but there was no external flooding. I passed my hand upon the Uterus, and found it as well contracted as I had left it, nearly an hour before : upon grasping the Uterus, a slight discharge of fluid blood ensued, but comparatively trifling ; after-pains by and by followed, after each of which there was some discharge, but not to that extent as to excite alarm on that account. Notwithstanding, the faintness rather increased than diminished ; the countenance became pale, the pulse feeble, the head giddy, and the lady complained of seeing indistinctly. Under these symptoms, I dashed cold water in her face, applied wet napkins to the belly, and presently gave

her some brandy and water. From this state of alarm she was gradually recovered ; but some hours were suffered to elapse before I ventured to leave the house. At the moment, I was disposed to attribute these symptoms to a state of collapse, from the want of accommodation of the parts within the abdomen to each other after delivery, and to certain unpleasant sensations thence arising, rather than to loss of blood, or to any permanent injury sustained during the labour.

About the middle of Monday, this lady had recovered from the languid state, in which I had left her early in the morning ; she had got some sleep ; had taken suitable nourishment, without difficulty ; and seemed likely to do well.

I made her another visit in the evening of that day ; I found her complaining of sickness, which had come on suddenly, without any apparent cause, and she had vomited several times. After vomiting, she complained of great difficulty in swallowing fluids, and of the mildest causing pain in passing down the throat. I inspected the throat, but could perceive no cause of complaint there ; I therefore suspected this symptom to be the consequence of some temporary inconvenience produced by the act of vomiting. On the morning of Tuesday my patient had passed a restless night ; and now there was a total inability to swallow ; nothing could be taken into the stomach. The countenance was dejected, but the pulse was little altered. The symptoms continuing at my next visit, towards evening, a consultation was requested, and an appointment was made with a celebrated accoucheur to meet me on

the Wednesday morning. At this time, my patient was evidently much worse, and the inability to take nourishment remained the same. On Wednesday evening, an eminent surgeon was called in consultation, who proposed the conveyance of fluids into the stomach through a hollow bougie ; and some brandy with milk was got down with apparent advantage ; during the night this was repeated ; but, gradually sinking, the lady died on Thursday morning.

The medical treatment of this case was such as the symptoms at the moment seemed to require : but the intestinal canal could not be satisfactorily acted upon by purgatives ; partly, I presume, owing to the inability of getting down a sufficient quantity : clysters were resorted to, to supply their place, as well as for nourishment. Local bleeding and blisters were not omitted : they produced no beneficial effect.

The fatality of this interesting case was unanimously referred to some cause unconnected with labour, or the puerperal state, but operating with greater influence under that state. There was evidently a paralytic affection of the muscles of deglutition ; but by what immediate cause that was induced, was not so obvious.

CASE XLI.

Fatal Tympanites of the Uterus after Delivery.

ABOUT four A. M. June 9th, 1820, I was disturbed by a message from Mr. W. desiring me to meet him in consultation, in a first case of labour, in Shadwell. The membranes had only given way in the early part of the preceding evening, yet the pains had been thought to have been sufficiently violent to expel the child; and as no improvement had been observed for some hours, the labour seeming to be at a stand still, my opinion was requested. In this case, the head was placed diagonally with the forehead to the right groin; it had advanced considerably into the Pelvis; there was no distress; pains were returning at intervals, but they were said to be now declining in power. Being desirous of giving time, I saw this woman, again about one P. M. nine hours after my first visit, and found the labour precisely in *statu quo*. The case readily admitting the application of the forceps, we determined upon effecting delivery without further delay, by that instrument, but even now there appeared no necessity for hurry. A dead child was soon produced into the world without any particular difficulty, or accident, and as soon as it was born, a quantity of offensive gas, with that olive coloured fluid, elsewhere mentioned, escaped from the Vagina. Uterine action did not seem disposed

to return, and after waiting some time, a separated Placenta was withdrawn. After this the Uterus felt well contracted, and the woman was left in a favorable state, between two and three o'clock. In the evening, Mr. W. called upon me to say, that this poor woman had died very suddenly and unexpectedly between five and six. All he knew about the matter was, that he was sent for in a great hurry to the poor woman, who was said to be in a fit, but found her dead, and her belly much swelled. Anxious to learn the cause of so melancholy an occurrence, leave was obtained to open the body. It was inspected the next morning. The external appearance of the belly was swelled; the swelling was soft to the hand. On dividing the parietes, the intestinal canal was somewhat extended with gas, the rest of the viscera healthy. The Uterus was much distended, but flaccid to the hand, and on pressing it, a large quantity of fetid gas escaped *per vaginam*; after this it became more flaccid. On opening into its cavity, there was only one small coagulum at the Os Uteri. The appearance of the Uterus, on dividing the abdominal parietes, was not unlike one at the fifth or sixth month of pregnancy.

I must confess, that before the Uterus was handled, or opened, I suspected death to have been occasioned by internal hæmorrhage: that certainly was not the case. Was this quantity of gas furnished from the surface of the Uterus, or had it made an entrance *ab externo*? The case was new to me; and added another item to the list of unsuspected causes of death, under or subsequent to, the act of labour.

ON

PROTRACTED LABOUR*
UNDER A NATURAL PRESENTATION.

IN the preceding account of natural labour, I abstained from a reference to any particular time in which the process ought to be completed, as essential to its definition ; but with regard to protracted labour, the time which has elapsed since its commencement, forms its principal feature. The epithet is applicable to those cases of natural labour, in which the time occupied in the whole process is lengthened to an unusual or unexpected period, with or without the superinduction of dangerous symptoms.

We are constantly meeting with various degrees of protraction in practice, from a slight lingering case, to one of three or four days continuance. If we allow twenty-four hours for the completion of a natural case, the continuance of the process for any

* Dystocia.

length of time beyond that period, will constitute a protracted case, in a lower or in a higher degree.

Protracted cases may be practically divided into three orders, which vary as much in their causes, as in the degree of difficulty attached to each.

1. Lingering labours, in which there is a mere consumption of time without any unfavorable symptom.
2. Labours combined with a slighter degree of difficulty, but which cannot be surmounted by the natural efforts alone.
3. Labours combined with an increased degree of difficulty, with a relative disproportion between the size of the head and the capacity of the Pelvis.

1.—On Lingering Labour.

THIS term is given to those cases in which the labour has already gone on for more than twenty-four hours from its commencement, without a reasonable prospect of its being soon terminated, and includes a degree of slackness or slowness in its progress: yet the process is generally safely completed.

But this description refers only to the most simple kind of lingering labour, with a roomy Pelvis. A lower degree of protraction easily partakes of a higher; and a case which may, in the first instance, assume a mere lingering character, may, in time, be complicated with appearances of the first-rate difficulty and danger. The following observations are therefore applicable to protracted labour in general. Three general causes conduce to protraction:

- 1.—An undue degree of resistance in the soft parts opposed to the propulsive efforts.
- 2.—Diminished energy and activity of those efforts.
- 3.—An improper direction or position of the head of the child, as it respects the Pelvis.

1. When protraction is produced by an undue degree of resistance offered by the soft parts, we have the Vagina, in the early part of the labour, and indeed for hours after its establishment, dry, contracted, indisposed to relax, and almost devoid of moistening mucus. It admits the introduction of the finger with some difficulty and not without painful sensation. The Os Uteri continues for an unusual length of time thick, firm, and resistent: the uterine efforts sometimes become prematurely strong and frequent, especially if the membranes have given way at the beginning, or if they have been ruptured intentionally, or inadvertently, during an examination.

The pain is of a cutting or tearing kind, and is referred to the small of the back, the hips, and the lower part of the belly: it occasionally strikes down the thighs. There are repeated calls to evacuate the bladder, and sometimes the rectum.

A degree of dejectedness is met with in women of a contrary temper, which preys upon the spirits, and induces a foreboding of the most melancholy consequences; and in proportion to the extent of the preceding symptoms is the probability of their longer or shorter continuance.

The relative site of the Os Uteri in the Pelvis, is in different instances variable: sometimes it is high

up, and placed in the centre of the cavity, with the head immediately upon or above it ; at others, it is low down, and looking backward towards the middle of the Sacrum, with a portion of the Uterus anterior to, and surrounding the head, so that its opening is with difficulty discovered : the finger must be carried considerably upward and backward, round that portion of the Uterus covering the head, before any information respecting the Os Uteri can be obtained.

The sufferings which the patient has to undergo, before such changes are brought about in the soft parts, as can permit the advance and passage of the head, frequently induce febrile symptoms, with their consequences, which gradually proceed on to a state bordering upon exhaustion : in such case, the interval becomes truly distressing, both to the patient and to her friends. They express many apprehensions for the result, and exhibit great anxiety for the safety of the patient, and not without reason ; yet, if the case be uncombined with other causes of difficulty, if there be merely rigidity of the soft parts, such gradual improvement is from hour to hour produced, as to satisfy the most scrupulous mind, now and then even beyond the most sanguine expectation, that the process will be terminated by the ordinary agents, without recourse to other means.

The above described state of parts is frequently met with in a first child, especially if the patient be somewhat advanced in life ; when rigidity of fibre is acquired by age. It sometimes occurs in stout athletic women, who lead an active, laborious life ; but it is rarely found in those who have had several children, or who are young and delicate.

The first marks of a favorable change are, a thinning and softening of the Os Uteri, with a secretion of mucus from the Vagina. Its cavity begins to feel moist and relaxed, and permits a more easy admission of the finger than heretofore. When these changes take place, the pains become stronger, but less poignant ; and the patient bears them with more resolution : she is less desponding, and submits with greater resignation to her distressful situation. But under their progress, as long as the Os Uteri continues thick, resistent, and not completely opened ; as long as the Vagina remains dry and contracted ; and as long as the external parts also shew an indisposition to give way, no manual or artificial assistance can be offered with any rational prospect of success. Whatever time may have passed since the commencement of the labour ; whatever may have been the previous sufferings of the patient ; or whatever may seem to be her present sufferings, we must carefully abstain from any officious interference : it only adds to the distress of the patient.

Any attempts, therefore, to hasten the labour by forcing the pains, by irritating the Os Uteri, by injudiciously rupturing the membranes, by forcibly dilating the external parts or Vagina, or by other artifices, under the specious pretence of doing something for the benefit of the patient, are equally reprehensible and injurious. And here I beg to remark, that I cannot give my sanction to those experimental applications of active substances to the Os Uteri, with the view of producing its relaxation, which are made, and recommended to be made, even by men of experience.

A premature rupture of the membranes is, in itself, always to be deprecated. It sometimes inverts the regular order of a labour, by inducing, in an early stage, too strong a degree of uterine action, which presently exhausts the mental and bodily energies. And frequent examinations, so apparently simple, though made in the most gentle and careful manner, do injury by the irritation they produce, and are useless after the presentation is known.

The more completely these cases are left, within due limits, to the gradual and full effects of the natural efforts and their consequences, the more safely and the more kindly do they usually terminate.

But under severe and protracted suffering, when no advance is observed for hours, it may seem almost to border upon cruelty to deny some attempts to obtain a mitigation of pain; to procure a temporary truce from those throes which seem to be productive of so little advantage; yet even under such apparent weight of distress, the policy of the measure ought to be previously established.

Let us therefore enquire, whether any and what means may be used with a chance of advantage; and, in their practical application, let us ever bear in mind, that relaxation of parts is the object required.

The means usually resorted to, may be ranged under five several heads :

- 1.—The internal exhibition of opiates.
- 2.—The abstraction of blood.
- 3.—The repeated injection of warm clysters.
- 4.—The external use of warm fomentations.
- 5.—The exhibition of *Placebo* medicines.

1. The practical knowledge of the benefits sometimes derived from the judicious exhibition of opiates, under paroxysms of pain, and various degrees of painful sensation, has led to the introduction of them into the lying-in room, under the act of labour, in which they are given for suspending or controlling those actions from which the pain arises. It appears to me, that labour-pains (properly so called) do form, and were intended by the Great Author of Nature, for the wisest purposes, to form, a constituent part of the act of child-birth ; that they are inseparably, attached to it as a cause ; that they are merely an external evidence of the presence and progress of those powers by which the process is finally to be terminated, but without a due degree of activity in which it must be prolonged : and that they ought not, generally speaking or on the application of a general principle, to be meddled with. I am certain they ought not to be entirely suspended : I have my doubts whether, except in very rare instances, any attempt should even be made to palliate them. Pain is certainly an evil, and is universally deprecated as an evil ; it seems always highly desirable to get rid of it as soon as we can ; but labour pain is established to bring about the happiest results. It is, then, one of those necessary evils to which we must patiently submit, within reasonable bounds. Labour-pains are occasioned by the resistance offered to uterine contraction, and when the soft parts readily give way, the degree of suffering is proportionally diminished ; when they offer more resistance, it is prolonged and increased.

'The brute creation certainly suffers less pain in the act of parturition, than woman ; but no inference can be drawn from that fact which is applicable to woman.

The Uterus of the cow or of the sheep, may, possibly, be endowed with less sensibility than the human Uterus, so that upon its contraction, the animal suffers less pain. Declining this supposition, the parts are so formed, as to give way with greater ease and readiness ; and the shape of the head, in the young brute, with its relative disproportionate size, ensures its passage with less uterine effort. But the cow and the sheep, under difficult parturition, sufficiently evince to those who have the care of them, considerable anxiety ; and express by their moans and their manner, increased sensation of pain.

Under the progress of a common natural case, even attended with much pain, opiates are inadmissible. In a lingering case, under rigidity of parts, their effects are at the best uncertain ; and I do not suppose, that they have any tendency to produce relaxation. In large doses, they procure ease from pain, but they also bring about a cessation of uterine action, and its return is not under control, or to be ensured at pleasure. When this is the case, the labour is always protracted ; its regular course becomes deranged ; and the pains are uncertain in time and power. Besides, full doses generally occasion head-ache, nausea, and an interruption of the peristaltic motion of the intestinal canal. These unpleasant effects more than counterbalance any advantages derived from temporary relief from pain.

But the injurious effects of opiates are not simply confined to the retardation or disturbance of labour previous to the expulsion of the child ; they are continued to, and exerted upon, that uterine power, by which the Placenta ought to be separated and excluded ; in default of which, it is detained within the Uterus, and thus flooding and other mischief ensue, from the same source. The introduction of the hand is then required to remove the Placenta, or to reproduce that effective degree of action which has been restrained.

Opiates sometimes, instead of allaying the pains, seem to increase their power : this effect is, however, so accidental, as not to be depended upon. When given in small doses, they produce less inconvenience, but they do little good.

The preparations of the English poppy will sometimes allay slight degrees of pain and irritation, and they do not produce similar unpleasant symptoms as foreign opium. But in the pains of labour, unless given repeatedly in large doses, they are almost inert.

Do opiates in large or small doses produce relaxation of the soft parts ? I have not remarked such an effect. When uterine action has been prematurely and violently established, a little relief has been sometimes procured by repeated small doses, at short intervals ; after which the labour has proceeded more favorably. When a truce is thus obtained, they should be discontinued. Their use should ever be directed with discretion and judgment ; because I am persuaded, it frequently does much mischief ; and I have repeatedly

witnessed serious inconveniences from it. I have several times been called upon to deliver by the forceps, when the labour has been previously interrupted by a large dose of opiate in its early stages ; to which, as a cause, the interruption might be fairly attributed.

2. The timely and judicious abstraction of blood, sometimes produces the happiest results, under violent pains of labour ; but an untimely or injudicious resort to this proceeding is as certainly injurious.

When uterine action has been violently continued for many hours, in a stout young woman, or in one of a full habit, a varied train of febrile symptoms makes its appearance ; the skin becomes hot, with or without perspiration ; the face is flushed ; the cervical veins are turgid ; and the patient complains of pain in the head ; under such symptoms, the loss of from twelve to sixteen ounces of blood from a free orifice, proves highly beneficial. If to these symptoms be added vertigo, or indistinctness of vision, the necessity of the measure will be more obvious. In such a case, abstraction of blood has a reference to the relief of the febrile symptoms.

But when the Os Uteri continues rigid for a length of time, under repeated returns of uterine action, with the head of the child incessantly pressing upon it, in the absence as well as presence of pain, a loss of blood, proportionate to the present strength, frequently produces a favorable change in the parts ; after which, relaxation proceeds more kindly and successfully. Yet, in the more early stages of a lingering labour, when the soft parts do not give way

freely, I have not remarked the same beneficial effects. But the relaxant benefits derivable therefrom, are confined to a case of undue rigidity in the Os Uteri alone: they are not extended to rigidity of the Vagina, or external parts, after the Os Uteri is opened.

Abstraction of blood is seldom admissible in long protracted labour: it leads to present and future injury by adding to that general exhaustion, which is almost an inevitable consequence of active protraction: the term of puerperal confinement is thereby prolonged, and the seasonable return of health proportionally impeded³⁴. Besides, a large quantity of blood is sometimes lost, in lingering labours, between the expulsion of the child and the removal of the Placenta for want of uterine action, and this loss is not always under our immediate control. Should such an occurrence happen, the voluntary abstraction of blood previously must increase the risk.

Upon the whole, blood-letting, in simple lingering cases, is seldom, of necessity, called for; but that every advantage may be derived from the operation, when necessary, the blood should be drawn from a free orifice, and in a full stream, that the best effects of the measure may be obtained at the least expense of the vital fluid; otherwise, blood-letting does more harm than good.

³⁴ [We cannot agree with our author in this remark, as our experience declares immediately against it. We have seen the most decided and prompt relaxation take place of the external parts, (as well healthy as when even injured by cicatrices, the remains of former laceration), from bleedings carried to, or nearly to, deliquium. So certain are we of this effect, that in no one instance where we have had occasion to employ it, have we ever been disappointed. See *Essay on the Means of Lessening of Pain in Parturition, &c.*—**AM. ED.**]

3. The repeated injection of warm clisters, into the rectum, in the case before us, if not positively beneficial, is, at least, harmless. The lower part of the intestinal canal is thereby emptied of its contents ; which, when they are hard, and in large quantity, may be discovered by the finger, through the Vagina.* A comfortable degree of warmth is likewise diffused through the neighbourhood of parts suffering from distension and paroxysms of pain, which seems to afford temporary relief. If the head of the child should completely occupy the Pelvis, some difficulty in the introduction of the pipe, and the injection of the fluid, may be met with ; should this happen, the pipe must be introduced backward into the hollow of the sacrum, behind the tumour formed by the head.

The materials of the clyster are perhaps of less importance than the quantity, and the degree of warmth at which it is injected ; gruel, mutton broth, milk, mucilage of starch, and similar fluids, are proper articles : a pint or more may be injected occa-

* A singular instance of this kind occurred to me some years ago, during the labour of a lady who had been negligent of her bowels, and for whom, under a preceding confinement, her accoucheur had removed a quantity of hardened *scybala* from the rectum, by the mechanical means of the handle of a spoon. On my first examination, I was surprised to meet with an irregular obstructing body, nearly filling the cavity of the Vagina, and which I at first took for some part of the limbs of the child ; but on a more accurate inquiry, and passing my finger as high as I could, I found the *Os Uteri* somewhat opened, with the child's head above it, and resting, as it were, upon this body. I thence concluded it to be caused by hardened *faeces* in the rectum. I desired the nurse to throw up a *gruel clyster*, she made the attempt, but did not succeed. I was then compelled to perform that unpleasant office myself, and readily threw up nearly a quart of gruel. The rectum soon evacuated the clyster, with its previous contents, and in such quantity as I have seldom seen. After this evacuation, the head descended upon the external parts, and was quickly expelled.

sionally, during the process, of a temperature pleasant to the hand. Clysters, however, seldom produce immediate relaxation in the soft parts.

If it appear desirable to procure a palliation of labour-pains by an opiate, I prefer the exhibition of small quantities of laudanum in warm clysters, to that by the mouth: and here, by the way, I beg to remark, that I have frequently seen temporary ease procured in uterine diseases, and cases of painful menstruation, by the injection of opiate clysters.

4. I have rarely had occasion to recommend the external use of warm fomentations, and therefore I cannot speak practically of their effects: they seem merely applicable to the relief of that painful distension which is produced by the pressure of the head upon the perinæum and external parts, when they are indisposed to give way; in such cases they may, to a certain extent, be serviceable. The usual mode of application by *stuphs*, appears so formidable to the generality of women, that, if proposed, it is either refused, or submitted to with reluctance; and I have seldom pressed the point, as I have thought these means rather useful in gaining time, than in producing positive relaxation.

The patient may sit over the steam of boiling water, placed in the pan of the night table; this is a simple, an easy, and, at least, a harmless mode of securing the effects of warmth, with moisture; and, perhaps, at the same time, it is one of the most efficacious means of producing relaxation by steam.

5. A harmless fraud may now and then be practised with advantage, upon an anxious, irritable woman, who is urgently and impatiently soliciting that

relief, which it is not in the power of the accoucheur to give, by the exhibition of some innocent *placebo* medicine.

In the expression of this sentiment, however, I by no means wish to sanction that frequent exhibition of medicine, which is occasionally resorted to by the less enlightened, or more interested part of the profession, and generally to the prejudice of the suffering patient. I am merely actuated by a wish to gain time for the complete exertions of the natural powers ; to inspire confidence on the part of the patient ; and to convince her and her friends, that every means of art are exerted for her relief ; that nothing is left untried for her benefit. Under such impressions, she submits to her protracted sufferings with a more resigned fortitude. Fortunately, women in general possess so much confidence and patience that a resort to this kind of practice is seldom called for. It is, indeed, rarely necessary.

During the early part of a labour, lingering on from hour to hour, from rigidity of parts, the patient may be allowed to use her own pleasure in walking about the room, in sitting up or in lying down on a couch, or bed, and in taking suitable mild nourishment. Spiritous liquors and stimulants, which, in the opinion of the lower classes, are so necessary to refresh and keep up the spirits, ought to be urgently prohibited.

Under every case of protracted labour, the bladder ought to be carefully watched ; the most serious consequences may ensue from neglect or oversight, independently of the additional pain which the patient suffers from distension.

When the head of the child occupies the Pelvis, and remains in that situation for a length of time, the Urethra becomes compressed between the head and the Pubes, so that the bladder is prevented from evacuating its contents ; distension of the bladder necessarily follows, and, in proportion to its degree, the patient has to contend with an increase of suffering, very different from labour-pain. This state of bladder may be always recognized by the simplest and readiest means, viz. by the mere application of the hand on the lower part of the abdomen, accompanied with a slight degree of pressure. If the bladder be distended, two tumours will be distinctly perceptible ; the one, at the upper part, extending the majority of the abdominal parietes, is formed by the Uterus with its contents ; the other, at the lower part, immediately above the Pubes, is formed by the distended bladder. Under this state of things, relief will be immediately obtained by the use of the catheter.

During the whole course of the case, the patient should be nourished with the mildest fluids, and should abstain from solid food and spiritous liquors : as there is usually a disposition to perspiration, the temperature of the room should also be moderate. Upon the whole, the more completely such a case is left to the perfect agency of the natural powers, within reasonable limits, the more safely and the more satisfactorily does it usually terminate ; but should it run on, and threaten exhaustion, it becomes a case which will be the subject of subsequent consideration.

2.—Protraction may be produced by diminished energy and activity of the uterine efforts.

This is the most simple and the least painful form of lingering labour ; though more time than usual is consumed in the process, the sufferings of the patient, upon the whole, are not much increased. We usually have the uterine efforts short, slight, and inefficient, with long intervals ; the Vagina and soft parts are moist, and do not oppose much resistance ; yet we do not observe a proper progress, and thus a labour may remain for a length of time stationary, notwithstanding the presence and repetition of these inadequate pains. During each interval, the patient is somewhat recruited, so that she is enabled to bear the return of pain for a length of time without much inconvenience ; she does not suffer that bodily exhaustion, or that mental anxiety which is usually experienced under a stronger degree of uterine action. After the Os Uteri is dilated, the process generally assumes an increase of activity ; the pains become quicker and more effective, with shorter intervals ; and the labour proceeds to its termination, with a greater degree of energy and vigour.

A disposition to inactivity on the part of the Uterus, is more particularly met with in young women, who shew an early tendency to become corpulent ; who possess a delicacy of frame, with laxity of fibre ; in whom other functions of the system are performed with a degree of irregularity and defectiveness.

It also sometimes occurs in those women who bear a first child somewhat late in life. It is likewise met with, though rarely, in women who have had chil-

dren, and whose former labours have run their course with a due degree of celerity and activity.

There is, however, a material difference between a case which is regularly proceeding in a slow, inactive manner, and one which is temporarily suspended. It will sometimes happen, that while a labour is proceeding with a proper degree of activity, the pains begin to decline, and by and by cease entirely. During this cessation of pain, the process is quite interrupted. This occurrence usually excites much anxiety, but is not attended with danger. After an uncertain time, uterine action returns, and the process is continued to its completion.*

In cases of protracted labour, from uterine inaction, any manual interference is generally improper throughout its course ; but in the early part of the process, it is always injurious. Frequent irritation of the Os Uteri, by the finger, with the intention of quickening and increasing uterine action, and which seems to produce that effect, is replete with future mischief.

The voluntary rupture of the membranes is never allowable previous to the entrance of the head into the Pelvis, and to its having assumed a good relative position, with respect to the cavity ; such a liberty ought rarely to be taken with the process previous to the full dilatation, relaxation, and retreat of the Os Uteri, and to the distension of the Vagina and soft parts by the membranous bag. Without attending to these precautions, the intention of hastening the process will frequently be defeated ; and I am not ashamed

* Vide Case xlii.

ed to say, that when I have occasionally taken this liberty, I have sometimes had cause to regret my officiousness. I am therefore desirous of impressing upon the minds of the junior branches of the profession the impropriety of rupturing the membranes with the view of hastening the labour, or of saving their time ; without previously adverting to the state of parts, and to the relative situation of the head.

After the membranous bag has performed those functions of dilatation and distension of parts for which it is by nature designed ; when it is protruding through the Os Uteri into the Vagina ; when it is pressing upon the perinæum, and embracing in its diameter considerable space, with the head well placed, ready to come in contact with the Os Uteri, its judicious rupture will frequently occasion an increase of uterine action, and procure a more speedy completion of the process, than if it had been left entirely to itself. But even this proceeding is unnecessary. The process would be eventually concluded with an equal degree of safety without it ; a longer space of time would merely be taken up, and more patience required. When the presentation of the child is ascertained to be correct, repeated examinations are not adviseable ; they then merely afford a knowledge of the degree of progress made from time to time ; and more injury accrues from the irritation they leave on the parts, and from the breach of delicacy they occasion when unnecessarily made, than is counterbalanced by the satisfaction arising from such knowledge. The pretence of doing *something*, with the view of forwarding the process, is always reprehensible. In short, these cases may

be safely left to the natural efforts ; and the less professional interference is offered, the better for the patient. The effects of medicine avail little in this case : indeed I am not aware that the *Materia Medica* presents any article possessing the power of aiding and forwarding such a labour by its specific effects. Those medicines which were recommended and exhibited by our predecessors for this purpose are now justly exploded. It may, perhaps, be expected, that I should except the *Ergot*, which has been lately introduced, and is stated to possess the singular efficacy of increasing uterine action, when languid or deficient, and of restoring it, when declining or lost³⁵. I have had no personal opportunity of witnessing these effects ; but allowing that preparation to possess these properties, I should doubt the propriety of its frequent exhibition, under the impression, that a medicine capable of producing such important changes in the uterine system, might not be otherwise harmless in its consequences. I should also suspect that it might, in some instances, be employed to suit personal convenience, or even with the most atrocious intentions.*

It is well known to those who are versed in the practice of midwifery, that sudden and unexpected changes are constantly occurring in protracted labours without any assignable cause, except to the

35 [The virtues of the *Ergot* have been so fully ascertained in this country, as to leave no longer any doubt upon the subject. The author declares he has "had no personal opportunity of witnessing its effects," and therefore he remains a "sceptic;" but we are persuaded that when such opportunity shall offer, his doubts will be instantly removed.—A.M. Ed.]

* Notwithstanding the late respectable evidence respecting the *Ergot*, I still remain a sceptic. The reports of its advocates sufficiently convince me of its negative powers.

agency of the natural powers alone. Now if, by chance, previous to any such change, a particular medicine shall have been exhibited with the apparent intention of producing it, that medicine, with the ignorant and inexperienced at least, will be sure to gain the credit of producing the effect desired. I was lately called to the assistance of a woman under a case of adherent Placenta, after the birth of the child, attended with dangerous flooding, to whom the gentleman in attendance was giving a few drops of laudanum every five minutes, "with the declared intention of producing contraction of the Uterus, and the natural exclusion of the Placenta!" Not being desirous of trusting, in a case of such hazard, to what I considered such ineffectual means of relief, I immediately removed the Placenta by the hand, and placed the woman in a state of security: but I have no doubt in my own mind, that if the Uterus had contracted spontaneously after the exhibition of the medicine, and had thrown off the Placenta before my arrival, my friend would have attributed his success, and the safety of his patient, to the ACTIVE MEANS he had used, and not to its proper and natural cause. So necessary is it in the practice of midwifery, and equally so in that of medicine, to distinguish between the POST HOC and the PROPTER HOC³⁶.

36 [We admit, with the author, many instances of coincidence, both in the practice of medicine and of midwifery; but we will not concede, that this is the cause of the reputation which the Ergot has obtained. It has been too frequently employed under circumstances which would require a most unusual degree of scepticism, to attribute the effects to the fortunate moment of exhibition. But to settle this question at once, and place the virtues of this drug beyond all dispute, we have only to observe, and ask for its confirmation the

After the expulsion of the child, in these lingering cases, we have frequently trouble with the Placenta. The inactivity of the uterine effort is transmitted to that part of the process, which ought to separate and exclude that mass. It will be useful to keep this fact in view, during the expulsion of the child, that we may be deterred from hasty extraction of the body and breech. The Uterus ought to be permitted to expel the whole of the child, that a regular and uniform contraction may be effected; by which the Placenta will stand a better chance of separation³⁷.

After the exit of the head, it now and then happens that the child does not breathe within a reasonable time; then the anxiety of the accoucheur may induce him to a more rapid extraction of the body and breech, than is warranted in common cases; but such extraction must ever be made at some risk

experience of almost every practitioner that has employed it, whether there is not a decided and peculiar character attending its operation upon the uterus—a character of pain and effort as distinct from those usually attending the parturient effort, as can well be imagined. So characteristic is the effect of the Ergot, in many instances, that we are persuaded we could in a moment distinguish the cases where it has been exhibited without a previous knowledge of the circumstances, from those where none had been employed.—AM. ED.]

37 [This is a most judicious and important direction. We are persuaded we have seen considerable mischief, if not almost irreparable injury, follow the neglect of it. The young practitioner but too often errs upon this point. He falsely supposes that after the escape of the head through the os externum, that it is one of his indispensable duties to deliver the remaining portion of the child as quickly as possible; to guard him against this error, not only in the cases just described, but in all others, he must ever keep in mind this simple, but all-important fact, that it is by the tonic contraction of the uterus alone, that the woman is or can be secured against floodings, retention of the placenta, or inversion of the uterus; and that this power is always weakened, if not entirely suspended, by the too sudden evacuation of the uterus. So precarious is the operation of this power sometimes, that the delay of one or two minutes, or the neglect of it, will give security to the patient, or plunge her into the most imminent danger.—AM. ED.]

to the mother. If it be thought necessary, for the sake of the child, the right hand may be kept upon the contracting Uterus, while the left performs the office of extraction, partly to assist the passive contractile effort, and partly to announce its degree with reference to the safety of the mother.

As to the management of the Placenta, I beg to refer the reader to the observations already made on that subject. I would, at the same time, offer a caution, unless in cases of obvious urgency, not to be too hasty in its extraction: to wait rather longer than usual for the return of uterine action, before any attempt is made for its removal.

3.—The third general cause of protracted natural labour before-mentioned is an improper position or direction of the head of the child as it respects the Pelvis.

If the face offer itself to the finger across the brim of the Pelvis, or if the forehead present to the anterior part of the Pelvis instead of the Occiput, the labour is usually prolonged. If, however, there be no additional cause of protraction or difficulty, the case will generally be completed by the natural powers: but as such cases do occasionally require other assistance, they will be discussed at length hereafter.

In determining the propriety of instrumental assistance in the preceding cases, we must make an estimate of the advantages which have been gained, or of the deterioration suffered, within a given time past: then looking forward to a similar time in the future, we must consider what may be the probable advantages or the disadvantages within that time,

presuming the labour to proceed as it has hitherto done, and conclude accordingly.

Thus, suppose that a woman has been in labour thirty-six hours ; that for the first twenty-four hours the process has gone on actively to a certain point, that the head is placed diagonally, or with the forehead to the Pubes, and that it is firmly wedged in the Pelvis ; that for the last twelve hours the pains have been strong, but have been ineffectually exerted ; that the woman's strength is not so good as it was twelve hours preceding, and that the pains are, upon the whole, rather upon the decline ; in short, that within the last twelve hours, no advantage whatever has been gained, notwithstanding there has been no deficiency of uterine effort ; what reasonable expectations can be entertained, in such a case, that the next twelve hours will finish the process ? Have we not rather to fear, that in that time the woman's strength will give way ? But we ought, likewise, to keep in mind, that all this time the head of the child is undergoing more or less pressure, by the continuance of which its life may be destroyed. The child's head, we know, will bear some pressure and diminution without injury, but to what exact extent short of the destruction of life in any given case, it is impossible to determine : if, therefore, we do err, we had better err on the right side : and I think it will, upon the whole, be found more correct practice, and will prove safer both to the mother and the babe, to have recourse to artificial assistance rather prematurely, than to defer it too long. I will only remark, that judgment must ever correct this principle, else

it may be carried to an unwarrantable length in the use of instrumental means.

CASE XLII.

Unusual Suspension of Uterine Action.

ABOUT five in the morning, of Tuesday, August 18, 1818, a post chaise was brought to my door, to convey me to the assistance of a lady in labour of her seventh child, at a short distance from London. On my arrival at my patient's house, about six, I found a medical friend in attendance, who appeared very anxious respecting the event of the case. He told me, that slight pains commenced during the night of Sunday, which continued through the early part of the day of Monday, when his attendance was required ; that towards evening the process began to quicken, so that by 10 P. M. the labour-pains were fairly established, and were producing considerable effect ; that the head was advancing into the Pelvis ; the Os Uteri was dilating, and the bag of membranes protruding : in short, that the labour was proceeding naturally, with every prospect of a speedy delivery. Under these cheering hopes, not long after the rupture of the membranous bag, the pains began to decline, and in a short time ceased altogether. The former labours of this lady had been usually quick and regular, so that she became alarmed at this ces-

sation of pain in the middle of the process, and I have little doubt, her anxiety added to the uterine suspension. I found the Os Uteri well dilated, and flaccid, the Vertex somewhat down in the Pelvis, and the case appeared to me totally free from any appearance of danger. My friend seemed to think delivery necessary, but I decidedly opposed taking any measures for that purpose. My object was therefore to pacify her mind under her groundless alarm, and to inspire confidence. She was allowed to walk about the room, or to lie down at her pleasure, took suitable nourishment, and got, at intervals, refreshing sleep. In this situation she remained sixty-hours, with now and then a slight pain in the back, (as if to remind her that the process was not entirely gone by) : viz. through the day and night of Tuesday, through the day and night of Wednesday, and till Thursday afternoon, about four o'clock, when uterine action was suddenly resumed, and a living child was quickly expelled between six and seven on the Thursday evening. The process was thus naturally and happily concluded, and the lady felt no future inconvenience.

This case offers an instance of the cessation of uterine action after its establishment, unconnected with exhaustion, or any obvious cause, and for a length of time. It is no uncommon thing for the Uterus to sleep, as it were, for a short time : to cease its action ; but rare, that such cessation should continue so long. The case is merely recorded for this fact.

CASE XLIII.

Fatal Case of protracted Labour.

LATE in the evening of Thursday, June 20th, 1816, a letter was brought to me from a professional friend, about six miles from town, requesting my assistance in a case of protracted labour. I was informed by the husband of the patient, that she was between thirty and forty years of age ; that this was her first child ; that she had been ill several days ; and that she had two medical gentlemen in attendance, who considered her in great danger. I arrived at the bed-side of the patient about one on the Friday morning ; the child had then been expelled, in a putrid state, by the natural efforts, a short time before, and the Placenta, having been thrown off by uterine action, had been just withdrawn.

The patient seemed now in a state of great exhaustion : she had a sunken countenance ; a feeble, quick pulse ; oppressed and laboured respiration ; some tension of the belly, and pain on pressure. The Uterus was well contracted ; and the sanguineous discharge moderate. Suspecting, from the feel of the bladder, that urine might be contained in it, I introduced the catheter, and drew off about a pint. I learnt from my friend, that the process had begun in a slow manner, on the Monday preceding ; that

through the days and nights of Tuesday and Wednesday, it had slowly, but gradually, advanced ; that on Thursday morning, not being finished, a neighbouring medical gentleman was called in, who recommended the loss of some blood, the injection of clysters, and the use of the catheter. That after some further time, he introduced the vectis, but did not succeed in his attempts to extract the head ; and that, the case assuming hourly a more dangerous aspect, an appeal was made to me. I had merely to recommend an anodyne, with such instructions for the future management of the case, as seemed to be called for ; and took my leave, under an impression of great danger.

The patient, towards morning, got some sleep, and for some hours offered hopes of doing well : but about the middle of the following day, she was seized with a convulsion fit, which had been preceded by a copious discharge of fetid fluid from the Vagina, with tension of the belly, and which she did not long survive.

CASE XLIV.

A very lingering Case naturally terminated.

ON the evening of Monday, 21st January, 1811, I was requested to see a poor woman, of middle age, in the neighbourhood of the Old Jewry, who was gratuitously attended by one of my pupils in her lying-in ; and who had been in slow labour of her first child near twenty-four hours. The pains were short and distant ; the Os Uteri dilating ; and the head presenting. Thus she passed through the night of Monday, and the day of Tuesday ; so that by Tuesday evening, a little advance had taken place. The bladder becoming distended, I introduced a flat catheter, with ease, but no urine escaped. A clyster was now injected. Tuesday night passed over in nearly a similar manner ; and on Wednesday afternoon I again passed a flat catheter, but equally unsuccessfully. I now took a long round catheter, and introducing it high, relieved the bladder of more than a quart of urine. This evacuation gave considerable relief ; the woman went to sleep, and slept for some hours. The Os Uteri was more dilated, and the head was well down in the Pelvis, but had not turned with the Occiput under the Pubis. After her sleep, the uterine efforts were resumed with increased vigour, so that early in the morning of Thursday, a

dead child was naturally expelled, after a labour of more than eighty hours continuance. The urine was afterwards evacuated without difficulty, and she recovered without one bad symptom.

It is pretty clear, in this case, that the flat catheter did not enter that part of the bladder in which the urine was situated ; but whether it made a new passage or not, I cannot determine. I was about to deliver this woman on Wednesday evening with the vectis, but a more vigorous return of the pains prevented me at the moment, and proved it unnecessary. I am not a general advocate for so long delay.

I think it unnecessary to trouble the reader with more cases of lingering labour ; they are daily occurring.

ON

PROTRACTED LABOUR,

UNDER A NATURAL PRESENTATION, COMBINED WITH A
SLIGHT DEGREE OF DIFFICULTY.

THIS head includes those natural cases of protraction, under which the expulsive powers either give way, or are in danger of giving way, so that they become unable, of themselves, to complete the act of labour. The assistance of some means of art is therefore called for to supply the incapacity or defect, and to extract the head of the child by the application of a mechanical purchase, but these means do not, of necessity, destroy its life. They are technically called *forceps* and *vectis* cases.

That the act of labour may proceed with regularity and despatch, it is requisite that there be not only a due degree of activity in the agent, and of relaxation in the passive parts, but also that there be an exact relative proportion between the size of the head of the child, and the capacity of the Pelvis of the mother. It is also requisite, that there be a proper position of the head. Between a common sized head and a well formed Pelvis there is always found

that relative proportion ; but under a defect of capacity, it is necessarily varied. If a woman have a Pelvis possessing such defect, she must necessarily, in every act of child-birth, at full time, experience proportionate protraction or difficulty.

I have already shewn, that the head of the child does not pass through, and emerge out of, the Pelvis in the same direction under which it enters the brim : it adapts itself, in a well formed Pelvis, to the diversity of shape it meets at the different points of its progress. This accommodation of the head, then, becomes an essential part of the process : if it be impeded by rigidity of parts, or by a diminished capacity of Pelvis, stronger expulsive efforts, and a longer exertion of those efforts, are demanded, to overcome the difficulty thence occasioned : under which, exhaustion sometimes occurs. In a first child rigidity of parts is more common than in subsequent children ; we have also to contend with a certain degree of ignorance as to the actual capacity of the Pelvis, when the head does not readily descend, which is, in future labours, removed.

A Pelvis may be malformed at several points ; at the brim ; in the cavity ; or at the outlet. If there be malformation at the brim, arising either in the projection of the prominence of the sacrum, or in a narrowness at the pubes, the head remains above the brim, or very partially enters it. It then becomes stationary, notwithstanding the pains may be violent. This case will be the subject of future consideration. If there be malformation of the cavity the head gains a partial possession of the pelvis ; but it is detained in its passage through, or becomes

firmly locked within it. If there be malformation of the outlet, the head remains near or upon the external parts.

These several cases of malformation may be produced in various ways, and by different causes. By a diminution of the hollow of the Sacrum : by the protrusion of the spinous processes of the ischia : by ankylosis, or immobility of the coccyx : by the approximation of the tuberosities of the ischia : and by a want of space in the arch of the pubes. These defects are at length detected by a careful examination, and by the site of the head.

The interposition of sutures and fontanelles between the several bones of the infantile skull allows a considerable scope for collapse, without injury to the parts beneath, when increased compression is made in consequence of the above defects, and the scalp becomes flabby ; but the degree of collapse has certain limits, below which the head cannot be lessened. If the defect be trifling, a full sized head may, by accommodation, be propelled through the Pelvis ; but if it be considerable, the head sticks by the way. It cannot be moulded to the dimensions of the passage ; it remains in spite of the strongest uterine efforts, at a greater or less distance from expulsion, as the retarding obstacle occurs higher or lower. We generally find, in the ratio the head is diminished in rotundity, it is increased in length.

Under a slight degree of malformation of Pelvis, even with the most correct presentation of the head, it will require a long exertion of the uterine efforts, so to mould the head and alter its shape, as to allow it to turn with the occiput under the pubes in the course

of its advance ; without this change in its relative position, the head cannot make its exit, and in the attempts to bring it about, the natural efforts frequently fail. But if there happen to be, at the same time, a relative misplacement of the head ; if the forehead, for instance, shall, in its descent, have taken the situation in which the occiput is usually found, and shall turn towards the pubes, or if the face shall present either with the chin or forehead to the pubes, an increase of difficulty will necessarily attend the case, and the chance of failure is greater. If also the hand or arm of the child should happen to be pushed down by the side of the head into the pelvis, since the space is proportionally diminished by that extraneous bulk, a proportionate protraction is produced.

We have also now and then to contend with difficulties arising out of injury done to the soft parts in a former labour, in consequence of which contraction of parts has taken place, without any deterioration of the pelvis itself.

It is one of the nicest points in practice correctly to decide, whether any given case of protracted labour may be trusted with safety to the further exertions of the natural agents, or whether the means of art ought to be promptly brought to their assistance. In determining this important question, the whole of the symptoms are to be collectively and severally considered, and their different tendencies accurately examined, that we may equally escape the imputation of haste and indiscretion on the one hand, and of delay and indecision on the other : yet, let us ever bear in mind, that more injury may possibly accrue

from too long delay, than can arise from premature assistance.

Necessity, and necessity alone, then, is the only justifiable plea for the use of instrumental assistance; let us therefore now enquire into the nature of those marks and symptoms, the presence or absence of which establishes that necessity. They are complex and various.

- 1.—The condition of the **Os Uteri**, and of the soft parts.
- 2.—The past and present degree of uterine action, with the effects it has already produced, and those it appears to be still producing.
- 3.—The relative size, and situation of the head.
- 4.—The length of time the head has remained in the same situation in the **Pelvis**, without advance on the accession or continuance of pain, and without retreat on the diminution or cessation of it.
- 5.—The lapse of time since the commencement of active labour.
- 6.—The extent of pressure upon the soft parts, and the time they have been subjected to it.
- 7.—The appearance of the vaginal and uterine discharges.
- 8.—The degree of permanent pain in the uterine tumour, and abdominal parietes.
- 9.—The obvious impression made on the system, by the continuance of the expulsive efforts, shewn in the access of febrile symptoms, in the approach of exhaustion of the vital and

animal powers, or in the attack of vomiting, or rigor.

- 10.—The age and natural constitution of the patient.
- 11.—A feeling of confidence, or of depression of mind.
- 12.—A first or subsequent labour.
- 13.—The previous state of health, and habits of life.
- 14.—The probability of the life or death of the child in Utero.
- 15.—The temperature of the weather at the time prevalent.

1. The condition of the **Os Uteri** and of the soft parts is an useful test of the practicability of instrumental assistance by the forceps or vectis, and in some measure, also, points out the admission of its propriety. If the **Os Uteri** have not acquired a competent state of dilatation ; if it will not permit the easy application of the instrument within its orifice ; if it do not also allow its safe action, the attempt will either be frustrated, or mischief will ensue from compression of parts. Before we can entertain the most distant idea of giving such assistance, we ought to have the **Os Uteri** entirely dilated and flaccid, and the soft parts actually relaxed, or easily dilatable. As long as the **Os Uteri** continues thick, rigid and contracted, however low in the Pelvis, the head covered by the Cervix and **Os Uteri**, may have descended, and however much the woman may appear to have suffered from the debilitating effects of a pro-

tracted process, the case cannot yet be terminated by the forceps or the vectis³⁸. If under the state of parts described, any untoward occurrence should intervene and call for immediate delivery, it must be accomplished by other means, than those alluded to. Great caution is also requisite in working either of these instruments, even presuming its successful application, in those cases in which the Os Uteri is dilated, but in which the external parts and Vagina continue obstinately rigid, lest permanent injury be unintentionally inflicted on the patient.

2. While the uterine efforts continue active and vigorous, returning at short intervals, with a cessation of pain during the interval, though little impression may seem to have been made in the general progress of the labour for a length of time, the period of the necessity, above alluded to, has not yet arrived. This observation, however, must be confined to cases in which there is no want of room at the brim of the Pelvis; and to those in which there is not that obvious deterioration of the cavity or outlet, as to impede the ultimate passage of the head. In either of these instances, delay would only occasion an unnecessary endurance of suffering, at the risk of exhaus-

38 [Too much care cannot be taken in the application of instruments, and the rule laid down just above, that "necessity and necessity alone is the only justifiable plea for their use," cannot be too much insisted on, though, it will be granted, there may be considerable diversity of opinion what circumstances would constitute that "necessity." But, with respect to the rule to which our note is affixed, there can be no possible dispute, it is therefore imperious. We have noticed this, because this rule has been but too frequently transgressed, and in one instance of which we were informed by an indisputable authority, that the forceps had been attempted to be employed while the head was entirely covered by the uterus, which was stretched to great thinness, and forced low in the pelvis.—AM. ED.]

tion, or perhaps of greater mischief. But when uterine action, after its perfect establishment, and after its regular continuance for a length of time, gradually declines in power and effect, until it almost disappears; when its intervals become so lengthened, that its returns are scarcely perceptible; when, under its most active state, little advantage has been gained in a given time, as far as the advance of the head is concerned, and under its inactive state, the head remains stationary, without even slightly receding; when, also, the present inactivity appears to be the consequence of exhaustion of the uterine powers from preceding exertions, no reasonable expectations can be entertained of so effective a return of uterine action, as to preclude the necessity of instrumental assistance. The temporary suspension before noticed, must be excepted³⁹.

Under this gradual diminution of pain, we ought to beware of delaying the delivery until uterine action has entirely ceased, lest we be deprived of the advantages derived from its assistance during the operation.

3. I have already remarked, that Nature has wisely established a due relative proportion between the size of a full grown head and a well formed Pelvis, so that the former adapts itself to the latter, and makes its passage, in common cases, without difficulty. If this relative proportion be altered; if any

39 [It is in cases of this kind, that the Ergot has been so frequently useful in the hands of the American practitioner; it should therefore always have a fair trial before instruments are had recourse to—it may fail, but can do no injury; but it will often succeed, and spare the necessity of mechanical aid.—**AM. ED.**]

deviation from a perfect form exist, the head is retarded. Thus a small sized Pelvis, or one slightly disproportioned, embraces a full sized head at various points, and obliges it to take a diminished form, and an altered shape, before it can pass, so that stronger uterine efforts are required to propel it downward; and a woman who possesses such a Pelvis, must in every case of child-birth, experience more or less difficulty. But if, also, in such a Pelvis, the head should not present in the most favorable position for its passage; if, instead of the occiput offering itself towards either of the groins, the forehead happen to be placed in that situation; or, if the face present, the difficulty of expulsion will be increased, for reasons too obvious to be mentioned. This adverse position of the head may, in the former instance, be readily recognized by the situation of the respective fontinels, and by the direction of the sutures; but if an ear can also be felt, a trifling attention to its parts and bearings will remove any doubts, which might previously have existed, as to the exact position of the head. In the latter instance, it may be known by the irregularities of the face.

4. The length of time the head may have remained in a similar situation without advance on the accession or continuance of uterine action, or without retreat on the diminution or cessation of it, is always a consideration of great importance. The head is impelled into the Pelvis by repeated contractions; it becomes at length so impacted by their agency, as to fill up every space of the brim, and upper part of the cavity; these uterine exertions, after a time,

become unavailing; they effect no advance; in the interval of pain, there is no retreat of the head, as is usual, when the Pelvis is sufficiently roomy. The head therefore remains stationary in that situation, either until its size somewhat gives way from continued compression, so that it is enabled to descend, or until the uterine exertions themselves begin to decline, and the woman's strength to fail. Under this state of impaction, a considerable portion of the head, towards the base of the skull, remains firmly fixed at and above the brim, while the elongated vertex, covered by the tumid and flaccid scalp, is approaching the perinæum. Without a careful examination as to the quantity of head actually in the cavity of the Pelvis, the nature of the case may be erroneously surmised.

Impaction is detected by the difficulty of insinuating one or more fingers of the right hand, between the head and the different points of the Pelvis, with which it may be in contact: but the degree of actual descent of the head is more certainly determined by the introduction of two or three fingers of the left hand along the Sacrum, than by the common mode of inquiry. By the latter expedient, it will frequently be found, that the head occupies a less portion of the cavity of the Pelvis, than had been previously suspected. When impaction of the head has continued for a length of time, various inconveniences ensue from pressure, which will presently be noticed.

5. The length of time which has elapsed since the commencement of labour is in itself, singly and simply considered, a matter of less importance than

is usually attached to it; but in connexion with other symptoms, it ever merits attention. The friends and nurse of a parturient woman pay more attention to this obvious point, than to others, far more interesting to the accoucheur, in the back ground. They are constantly recalling to his mind the *length of time* she has been exposed to suffering, while they are ignorant of the progress the labour has made, and is making, or of the absence or presence of danger. And it frequently requires a greater exertion of fortitude and self-confidence to withstand the pressing importunities of relatives, that some means of immediate relief should be offered, than of dexterity in their application, when they are absolutely required.

But along with lapse of time, in a protracted labour, we have frequently to contend with an unusual depression of mind in the patient; with a settled anxiety for the result. This tends to increase the local or constitutional defect, and is further productive of an unfavorable influence, in a diminution of the natural energies of the body. We have therefore to dispel these groundless fears, and to counteract this state of mind by adequate expressions, inspiring hope and confidence.

We find that different women are variously affected by apparently similar efforts under parturition. Some women bear the continued violence of the labour-pains for a great length of time, without present or future inconvenience; while others soon languish under the distressing sensations of weariness and exhaustion. Such effects ought, therefore, to arrest the attention more than simple lapse of time. Be-

sides, one woman may run the risk of greater danger in a labour of twelve hours duration, than another in one of forty-eight hours continuance. Yet, generally speaking, it may be said, that the structure and functions of the female body do not admit of its exposure to violent pain and forcing throes for *several days*, without present or future risk. When a woman has undergone the pangs of child-birth for twenty-four or perhaps for forty-eight hours, without remission, and with little prospect of a speedy termination, the case assumes a serious aspect from lapse of time alone : suspicion begins to be on the alert, fears are justly entertained, lest the strength should not hold out to delivery⁴⁰.

40 [This paragraph suggests the propriety of constantly attending to the consequences which have resulted from the labour, rather than the period which has elapsed from its commencement; for more mischief is sometimes done in a labour of a few hours, than at other times from several days. To be directed in any instance by the mere lapse of time, is always injudicious, and sometimes fatal. We should ever be attentive to prevent mischief, rather than to the remedying of it after it has taken place; and the judicious practitioner will always avail himself of the moment, and not allow that moment to pass, when his prompt interference shall save much future mischief, or perhaps the life of one or more individuals. We cannot lay too much stress upon the absurdity that danger is commensurate with the duration of labour; or too seriously deprecate the rule, that interference is to be regulated by the number of hours which have elapsed in any given case; this mode of determining the question has been but too strongly inculcated by many writers upon the subject of midwifery, not to have had many victims on the one hand, or not to have caused an unnecessary and mischievous interference on the other. We have known assistance sometimes so long withheld, under the most pressing necessity, by merely considering the number of hours which had elapsed as the rule, that the best applied means afterwards have proved unavailing; and we have witnessed, at other times, the most wanton and rash interference, when a little more delay would have effected all that was desired. Let it then be considered as a rule, that the symptoms or condition of the patient alone, should regulate the conduct of the accoucheur, and not the period which has elapsed from the commencement of the labour. If this be the governing principle, we shall sometimes be obliged to act with the most decided promptitude to rescue our patient from a melancholy fate, while at other, we shall be induced to dally a long time, and commit the whole charge most safely to nature.—AM. ED.]

6. The present degree of pressure upon the soft parts, and the time they have been subjected to that pressure, are considerations which materially affect the future comfort of the woman. One principal object of professional care, never to be lost sight of, is, to conduct a woman through the act of labour in such a manner, that she may, after her confinement, be restored to her husband and to society, in a state of perfect integrity of parts.

Long continued pressure is to be deprecated, in proportion to its degree, and the length of time it has been borne, since it tends to counteract the above object. Melancholy instances of the dreadful consequences of pressure are now and then seen in the sloughing of the Vagina, of the Rectum, and of the bladder ; and, yet it is a difficult task to point out those general or local symptoms, which indicate, that the soft parts have already undergone as much pressure as they can bear, with a tolerable certainty of the future resumption of a healthy state and function.

When external tumefaction has made its appearance, and is increasing ; when the Vagina is deprived of its natural mucus, feeling hot and dry to the finger ; when the general mass of parts, having been previously tender to the touch, and more than usually sensible of pain, loses a portion of that sensibility, so that an examination is made almost without complaint ; when the head of the child has remained in one unaltered position, low in the Pelvis, for more than twenty-four hours, with pressure on the same points ; when anxiety and distress begin to be visibly marked in the countenance ; or when a

general rigor, followed by repeated vomitings supervenes ; such symptoms indicate, that the case has reached its achm  of protraction, from which the future consequences of pressure are justly to be feared, and that relief ought not longer to be deferred. The soft parts may probably have sustained such a degree of injury, as is not at present to be detected ; which may render them incapable of regaining their pristine state, and which may leave a constant and indelible memento of too long delay.

Under this protracted pressure, we ought to consider, whether it may seem more prudent to attempt the extraction of the head by the forceps and vectis, with the almost certain risk of an increased distension of parts during the operation, or to lessen the head, with the express intention of preserving these parts. No general rule can be offered for the regulation of the conduct ; the question must be decided by the matured judgment of an experienced accoucheur. Distension of the bladder, which, alone, is always productive of mischief, ought to be relieved by the occasional use of the catheter. In a few instances of vesical distension, I have witnessed the unsuccessful introduction of the catheter : the instrument has appeared to me to have passed through the under part of the Urethra before the head of the child, and probably into the Uterus, instead of finding its way into the bladder : it has taken a new direction somewhere, since it has seemed to advance forward without much difficulty, and has not answered its proper intention.* It may, indeed, hap-

* The catheter was actually passed through the under part of the Urethra into the Vagina, by a very reputable practitioner, in the attempt to relieve

pen, that although the catheter may have been passed into the bladder, no urine shall be evacuated through it, either in consequence of the apertures being plugged up with coagulated blood, or of the urine being detained in a kind of bag at the upper part of this viscus, formed by the compression of the head of the child on its cervix and lower part. Should the latter of these contingencies occur, a catheter of an extraordinary length will be required to reach the cavity containing the urine. A flattened catheter appears to me to be generally preferable to a round one, because it takes up somewhat less room. Some instances of sloughing of the bladder may perhaps be produced by over distension, and by inattention to this point; and though the case is so plain, and the catheter produces such instant relief, I have repeatedly seen it entirely overlooked. When mischief is threatened, or has actually taken place from this neglect, some other accoucheur is called in to make the best of the case he can, or to cover the blunders of his predecessor.*

7. The nature and appearance of the vaginal discharges in common labour, are objects of minor importance, yet they ought to be noticed when a labour is prolonged. I am not alluding here to sanguineous

the bladder in a case of Retroverted Uterus, so that a new false way was formed. My assistance was afterwards required to empty the bladder, and I found very great difficulty indeed in regaining the natural and proper passage. It was at length effected, and the woman was immediately relieved. The Uterus afterwards regained its natural position spontaneously, and the bladder evacuated its contents without assistance. I have in no instance seen any permanent injury from this accident.

* Vide case of rupture of the bladder.

discharges, but to the draining of a discolored liquor amnii, or other fluids from the Vagina. Under the process of labour, the liquor amnii will assume varied characters of colour and of smell, without the least indication of danger, or of any symptom connected with protraction. But when uterine contraction has been actively exerted for a length of time ; when the body of the child has been for many hours compressed by the Uterus, the vaginal discharges become materially altered in appearance and smell. At the commencement of labour, they are usually serous or mucous ; but after long uterine exertion, they assume an olive colour ; they become brown, slimy, and disagreeable to the eye and nose ; and seem as if the meconium of the child was mixed in them.

This altered appearance of the fluids issuing from the Vagina, may certainly now and then be produced by the meconium being mechanically pressed out of the intestinal canal by uterine action, but it also more frequently seems to me to be the effect of some change produced in the secretions from the uterine surface, as a consequence of continued action and pressure. It is not always a proof of the death of the child in Utero, yet in many instances after its flowing, the child is expelled void of life, and, from external marks, seems to have been deprived of life for many hours. When putrefaction has commenced in the child or Placenta, the discharges also become discoloured and offensive ; a quantity of offensive gas occasionally escapes from the Uterus, along with these discoloured fluids, both before and after delivery, but more commonly on the contraction of

the Uterus, after delivery. Its escape is attended with a gurgling noise. I feel myself quite unable satisfactorily to explain this uterine extrication of gas. The occurrence is more frequently observed in those cases, in which the child appears to have been for some time bereft of the vital principle ; yet I have met with it in cases in which the child has been born alive, or in which the child could not have been long dead at the time of expulsion. Though, therefore, in some instances, this extrication may appear to be dependent upon that decomposition of animal substances, solid or fluid, which is the immediate consequence of putrefaction ; in others, that phenomenon will not bear us out in our conjecture. We must then seek some other source of explanation ; and I have thought it might possibly be found, in the change just mentioned produced in the secretions of the Uterus, or perhaps in the action of the secretory vessels themselves. It is always accompanied with a degree of inactivity in the Uterus, and strongly evinces local derangement.

8. An increased degree of painful sensation in the Uterus, and in the abdominal parietes, which is produced by repeated contractions and by resistance, adds considerably to the sufferings of the patient, and is only met with under a state of long protraction. It is readily detected by a moderate pressure of the hand. During the progress of a short labour, when the child passes readily and easily, no pain is felt in the absence of contraction. The Uterus so far relaxes during the interval as to make no active pressure on the child, there is therefore no painful sen-

sation. But, under a case of protraction, when the uterine efforts have been for a length of time violent, the Uterus becomes diminished in permanent volume, its parietes are brought into close and continued contact with the body of the child even under its most relaxed state, so that at length that viscus becomes tender and sensible to the external touch. The discoloured discharge just mentioned is a frequent attendant on this painful state of Uterus.

9. The obvious impression made upon the system by the continuance of the active exertions of labour is in every instance a deserving object of close observation. When, in consequence of the repetition of vain expulsive efforts, a pungent sense of heat is perceptible on the skin; when the tongue becomes white and dry, or brown and foul; when the lips are parched; when there is a constant pain in the head, which is rather upon the increase; when there is a dark-coloured flush upon the face, with a rapid small pulse, such symptoms indicate the advance of febrile irritation, the progress of which will only be checked by timely delivery. If to the preceding symptoms be added a dejection of countenance, expressive also of great anxiety; a languid eye; a hurried and difficult respiration; a low delirium; occasional rigors, with vomiting of a coffee-grounds-like fluid, the urgency of immediate delivery becomes the more obvious. But in such an extreme case, even this dernier resort seldom answers the object intended; nevertheless, it offers the only chance of saving the patient; and no woman ought to be allowed to die undelivered in such a case, if delivery be practicable. The progress of

the symptoms to this extremity is usually gradual ; it is seldom rapid, except under hæmorrhage. It is indeed sometimes so slow, as to elude observation from hour to hour, till the case assumes a dangerous aspect. Besides, a false security, as to the safety of the patient, is now and then induced in the mind of the accoucheur, by that listlessness which is frequently consequent upon a protracted attendance, and by having long witnessed, with apparent impunity, the sufferings of the woman.

10. The constitution and age of the patient must not pass unnoticed. It may be difficult to determine the achm  of exertion or fatigue which any given woman may be able to bear under the act of parturition without injury, and with the prospect of regaining a perfect state of health ; yet experience shews, that the constitution of a woman possessing a laxity of fibre, shewing a disposition to corpulency, sooner succumbs under the continued efforts of active labour, than that of a thin spare woman. The latter frequently bears the violence of a protracted labour without present detriment, and afterwards rallies without difficulty ; while the former droops under apparently trifling exertions.

A woman who has enjoyed good health during the latter part of her pregnancy, and who has fallen into labour in good health, is more likely to pass through her trouble without danger or injury, than one of a different description. With respect to age, it is matter of known notoriety, that a woman becoming pregnant for a first time at a more advanced period of life, has generally to contend, during the pro-

gress of her labour, with a greater degree of pain and difficulty, than one under similar circumstances at an earlier period. The rigidity of parts acquired by age offers additional resistance to the passage of the head. The process of labour is also occasionally attended with equal difficulty and danger in a very young woman, who has become pregnant at an early age, before a perfect evolution of parts has taken place. The interval between perfect maturity and advancing years, is the most favourable period for parturition.

11. A feeling of confidence, or its reverse, has a powerful influence on those animal powers which modify the active exertions of labour. Confidence naturally imparts a degree of energy and vigour to all the actions of the body, especially to the uterine effort, and to those muscular powers which are called to its assistance. As long as this state of mind prevails, it enables a woman to bear the severest sufferings with fortitude ; and to look forward to their termination with pleasure. On the contrary, despondency produces the worst effects, nay, even the entire removal of uterine action. When a woman has imbibed a strong impression that she is in present danger, or that she may not ultimately recover, the very impression itself enervates both bodily and mental powers, and tends to induce that state which is so fearfully dreaded. It therefore becomes a matter of duty to endeavour to restore that confidence which has so beneficial a tendency in enabling a woman to surmount her present distress.

12. The complexion of the case is materially altered by the occurrence of protraction or difficulty in a first, or in a subsequent labour. Under the act of parturition in a first child, except in cases of absolute and obvious deformity of the pelvis, we are justly authorized to wait (with a certain share of watchful attention) the probable effects of uterine contraction, as long as it continues vigorous and efficient; as long as no symptom presents itself, threatening the woman's safety; and to defer artificial assistance till the pains give way, or danger appears. The expulsion of a first child almost always requires greater efforts, and takes up longer time than that of a subsequent one. Parts having undergone any previous change seem disposed to assume, with greater facility, similar changes at a future time. Besides, in a first child we are, for a length of time, ignorant of the exact capacity of the Pelvis, and of the possible adaptation of the head to its several parts; with such facts we become acquainted by a woman's having passed through the process of labour, and apply our knowledge with advantage in her subsequent children: so that if a woman, having expelled one or more children with ease, should become the subject of protracted labour, notwithstanding the presence of strong expulsive efforts, we become at length convinced, either that some organic derangement of Pelvis has occurred in the interval, preventing the passage of the head, or that a preternatural size of head prevails. But even in a first child, should a degree of positive malformation of the Pelvis be early detected, to such an extent as must eventually prevent the head entering and passing, it would be an useless waste of

time, an unnecessary consumption of the natural powers to withhold that assistance which is so urgently called for. In a first labour, as well as in a subsequent one, the activity of the process may be suspended under a temporary cessation of pain, without injury.

13. The previous health of the patient ought to have due weight upon the mind in forming a conclusion. When symptoms of local or constitutional affection appears towards the end of pregnancy, and are progressive, the act of labour is sometimes prematurely hastened, and though the expulsive efforts may be weakened, resistance is proportionally diminished, either from the state of parts, or from the size of the child. But if protraction should ensue under a degree of weakness from previous illness, an earlier resort to instrumental assistance may perhaps be justifiable with the express intention of husbanding the natural powers, and of preventing unnecessary waste, than might have been supposed proper under a perfect state of health. Those qualifications which appear the most favorable to a kind, speedy, and safe termination of the process of labour, are health, youth, a good form, and lively spirits. The woman in possession of such qualifications, has little to fear under child-birth, except from accidental occurrences, not under human control.

14. The probability of the life or death of the child in utero, though a consideration of importance in itself, ought not to be allowed to influence the practice, except in cases of obvious malformation, or of unusual protraction. It is an imperious part

of professional duty, in every instance, to view the child as a being possessed of life, and practically to act upon that presumption, until positive proof is shewn to the contrary ; and even if proofs of the loss of life do exist, it is ever desirable to have the child produced into the world without disfigurement, mark, or mutilation, when that object can be satisfactorily, and with safety to the mother, effected. The loss of life in the child does not, in general, affect the expulsive powers of the Uterus ; a dead child is usually expelled with as much facility as a living one. Besides, those signs which have been considered indicative of the death of the child before birth, are so equivocal, as to deserve little attention ; they are always weakly characterized, until symptoms of incipient putrefaction appear. When in a protracted case, an unusual foetor attaches to the finger upon its being withdrawn ; when the hair or cuticle of the scalp or face adheres to the finger or follows it ; when the Funis being down in the Vagina by the side of the head, has ceased to pulsate ; when, in a natural presentation, the discharges are evidently mixed with the meconium of the child ; such marks plainly evince the death of the child⁴¹. When seve-

41 [There is scarcely any thing more uncertain than the marks generally insisted on as characterising the death of the child ; it has happened that the child has been born alive, when a number of the most decisive signs have united ; and children have been still born, where there was not a single mark to excite even suspicion. Baudelocque has an excellent chapter upon this subject—he teaches us how little reliance is to be placed upon any of the usually recognised symptoms—he shews that the escape of offensive gas ; a separation of the cuticle and hair ; a rolling motion within the abdomen ; a shrinking of the belly and cadaverous appearance of the woman, &c. are all at times fallacious signs of the child's death. We have more than once seen an escape of meconium, without its marking the death of the child, when the head has been the presenting part. We therefore regard the want of pulsation in the cord

ral of these are present, no doubt of the fact can exist; then the exercise of the judgment must be called to decide, whether the mother's situation may not be more properly alleviated by lessening the head, rather than by extracting it entire by the forceps or vectis. But even in such a case, though the perforation of the head would inflict no additional violence upon the child, it is better to avoid the appearance of mutilation after birth, if it can with propriety be let alone. I need not here mention a moral reason for abstaining from an unnecessary perforation, since it is but too evident, that if the child had but the remotest chance of being born alive, that chance would be denied to it by perforation.

The foetus above alluded to is the consequence of incipient putrefaction in the surface of the child, is some of the placental vessels, or in the membranes, from loss of life and circulation. It does not make its appearance till many hours have elapsed after the event, but after what precise lapse of time I am unable to determine. It is usually so strongly marked as rarely to deceive; and when it has once been observed, it is never forgotten. The absence of motion; a sense of coldness and weight in the belly, and some others are too equivocal to merit notice, or to influence the conduct.

15. The state of the weather sometimes exerts a baneful influence on the act of labour. In very hot and sultry weather, the animal body is incapable of

when it has prolapsed; a tumour in which the cranial bones are distinctly felt loose and unconnected, as almost the only positive marks of the child's death.

—AM. ED.]

making or of bearing those exertions to which it might be equal in temperate or cold weather. If a woman happen to fall into labour in hot weather, she soon experiences the effects of weariness and exhaustion. Painful affections of the head are also common towards the close of pregnancy ; and I have a strong suspicion, that sultry weather, with a disposition to thunder, has some influence in producing an attack of parturient convulsions.

When several of the preceding occurrences are combined under protraction, and especially if exhaustion and febrile irritation be induced, longer delay cannot be permitted, with safety to the mother ; active and effectual assistance should be promptly offered by some instrumental means. Indeed it appears to me less blameable practice to have recourse to these means rather *too prematurely*⁴², than to defer it too long. But this principle must ever be corrected by judgment. Having determined upon the necessity of the case, and having arrived at the conclusion that the patient ought to be speedily relieved, to avert that danger which otherwise seems to await her, we have only to select that instrument which appears the most appropriate and applicable to the particular case. In making this selection, the relative situation of the head to the Pelvis is principally to be considered. As long as the base of the skull remains above the brim of the Pelvis, the short forceps or the vectis cannot be successfully applied ;

42 [Our author must not be understood here to invite to a rash or unadvised use of instruments ; he merely suggests, and we think with great propriety, that an early use of the forceps, even before a great combination of symptoms should imperiously demand them, is less mischievous than too long a delay before they are employed.—AM. ED.]

and if the use of either instrument should, in such a situation of the head, be attempted, the operator will most probably be foiled. Indeed it is sufficiently obvious, that either of these useful instruments cannot be satisfactorily employed, until the head has advanced so low in the Pelvis, as to be completely within the grasp and power of the respective instrument, and it is readily known when the head has acquired that desirable situation, by either of the ears being within distinct reach of the finger. I have, indeed, contrary to this general rule, operated successfully with the vectis, in a few instances, when the ear could not be felt, and when the head did not appear to be within the grasp of the short forceps ; but, I am ready to confess, that the attempt has been made with reluctance, and at the risk of injury to the mother.

I have no wish to engage in any controversial discussion on the relative merits of the short forceps and of the vectis ; nor do I propose to offer any remarks on the mode of application, or of action of either of these instruments : these subjects have been so repeatedly and so ably handled by other more competent writers, that any observations of mine would be quite unnecessary and superfluous. Suffice it for me to observe, that either instrument judiciously applied, and dexterously used, is competent to the relief of slighter cases of difficulty. I occasionally use both instruments at my option : but having been, in the early part of my life, biassed in favour of the forceps by the lectures and writings of the late Dr. Osborne, I am perhaps more partial to the use of that instrument, than to the use of the vectis.

The long forceps is recommended by some practitioners as an useful instrumental in cases in which the bulk of the head still remains above the brim of the Pelvis⁴³. That the long forceps may now and then be successfully employed under such circumstances, I have had sufficient proofs, but it requires, in my opinion, very great judgment and experience to determine the particular cases to which this instrument is, *with propriety*, applicable. I acknowledge, that it possesses considerable powers of extraction ; but it ought ever to be remembered, that any attempt to extract a full sized head through an inadequate Pelvis, by main force, will probably be followed by serious mischief from pressure : and the risk must ever be in proportion to the degree of violence used. The question is not, whether a head can be extracted ; but whether it can be extracted without probable injury to those parts through which it is made to pass. I think this instrument, then, only applicable to those cases in which, either there is no deformity at the brim, or in which, the malformation is very trifling.

Fortunately for the profession and the sex, the use of instruments in the practice of midwifery is seldom called for, in comparison with the numbers daily delivered ; and those accidental occurrences, which do justify their use, are not so far under control, as to be prevented. In the process of labour, as in many other natural operations, time proves at length equi-

43 [We are decidedly of opinion, that the long forceps of Baudelocque at all times are preferable to the short, however the latter may be modified by ingenuity or caprice. There is no situation in which the short can be used, but where the long can be as easily and as advantageously employed; but there are cases where the converse will not hold good—it is therefore a needless multiplication of instruments to have both.—A.M. ED.]

valent to power and force. By allowing time for the production of the necessary changes, by patient forbearance, we find in the generality of cases, even under the process of lingering labour, that the child is ultimately protruded by the natural powers ; but whether this desirable event may be finally accomplished or not, is a question which cannot be determined until the experiment has been in some measure made, or until proofs of failure be observed.

When the hand or arm descends into the Pelvis, by the side of the head, if the accident be discovered in the early part of the labour, before the head has advanced so low as to occupy the cavity, it may be returned without difficulty, by passing two or more fingers of the left hand along the hollow of the Sacrum, pushing up the descended part above the brim, and detaining it there till the return of uterine action lowers the head into its place ; when this is effected, it rarely descends a second time. In performing this simple operation, no great force is required, if care be taken to give the elbow its natural bend. But if the arm shall happen to have come low down in the first instance; and the head be suddenly propelled into the centre of the Pelvis pressing upon the arm, this mode of management will seldom succeed ; the pressure of the head renders the return impossible. The head must then be allowed to advance under the presence of the retarding arm. When this is the case, the parts of the arm below the point of pressure swell ; they suffer all the effects of violent compression from above, which, if the case be long protracted, sometimes produces ulceration and sloughing, after birth. The swelling

of the arm is a proof that the child is still alive ; yet by its increasing bulk, it adds to the difficulty.

When the arm is thrown suddenly low down with the head above it, the case may readily be mistaken for a shoulder presentation, and it will require some care in the examination to detect the difference. The presence of the arm in the Vagina, naturally induces a suspicion that the shoulder may be presenting ; which is not removed till we have satisfactory evidence of the head being above, by the feel of the sutures, of a fontinel, or of resistance to the finger by the bones of the skull. A mistake might put the woman to increased pain and danger, by causing the turning of a child, when the operation was not necessary.

By mismanagement and officiousness, the case may easily be made a shoulder presentation. When the hand is protruded low down before the head fully occupies the brim, if the attendant, through ignorance, or mistake, should attempt to bring it lower, the shoulder may be brought to the brim of the Pelvis. I knew one instance, in which, under the attempt to push up the hand, the head also was carried upward, and the next pain brought the shoulder to the brim of the Pelvis ; uterine action rapidly succeeding, the shoulder was pushed down, and turning became indispensable.

I have above stated, that the head must be allowed to advance under the presence of the retarding arm ; the case is therefore to be left to the natural powers. The labour is always protracted by the occurrence, but I have not yet met with an instance, in

which instrumental assistance became necessary⁴⁴. I can, however, readily suppose such a degree of difficulty to be induced, as may call for that assistance ; it must therefore be applied according to the common rules, without reference to the obstacle, yet with every care to the protruded arm, that it does not suffer an increase of injury from the pressure of the instrument.

The descent of the Funis offers no impediment to the progress of the head : the life of the child is thereby endangered, but the mother is not affected by it. If a portion of pulsating Funis descend while the head remains at or above the brim, it may sometimes be satisfactorily returned by the left hand of the accoucheur ; but too frequently after it is returned, it again slides down. After repeated futile attempts, we are obliged either to leave the case to the natural efforts, at the risk of the child's life, or to have recourse to instruments, with almost an equal risk. The judgment of the accoucheur must decide the point. If pulsation have ceased, there can be no question about the matter.

44 [We once met with a case of this kind, in which we were obliged to have recourse to the forceps—the patient was under the care of a midwife, when our assistance was required—the arm was down on the posterior part of the pelvis, and was strongly compressed by the head against the sacrum—the woman was much exhausted by fruitless exertion, and the pains had nearly ceased—the forceps were applied over the forehead and vertex, (the only method in this case that they can be used) and the head was brought down so as to occupy the lower strait—the instruments were then removed from these positions, and placed over the ears of the child, and the labour was terminated in this manner.—**Am. Ed.**]

CASE XLV.

Protracted Case, under Edema, relieved by the Forceps.

IN November, 1818, being previously engaged, I was called to attend Mrs. L. a very corpulent young woman, of twenty, with edema of the legs and of the parieties of the belly. Her legs and thighs were swelled to an enormous size before she fell into labour. The first part of the labour went on slowly, yet satisfactorily; but after the process had continued for about twenty-four hours, she began to shew symptoms of distress. The head of the child had, by this time, advanced well down into the Pelvis, so that the ear could be distinctly felt immediately under the Pubis. Observing, after the lapse of a few more hours, that the pains were baffling, and produced little impression towards the expulsion of or change of situation in the head; considering the woman's constitution, and fearing it might not bear up against the evils of further delay, I determined, with the approbation of herself and friends, upon the application of the forceps. She had of late become feverish and restless; and had repeatedly called upon me in the most urgent manner to put an end to her sufferings, by delivery. I got the instrument well applied, and giving the head its proper inclination, I readily extracted it. The child presently surprised and pleased the mother and nurse by its cries. The lady suffered little under the operation, and with common attention, soon regained a perfect state of health.

CASE XLVI.

A Common Protracted Case.

ABOUT two P. M. Sunday, August 27th, 1820, an old friend sent to me, to request I would see a young woman in labour of her first child, whose case had become more protracted than he had expected. She had been in strong labour since the morning preceding; the head was approaching the Perinæum, with the face to the Symphysis Pubis. In this situation it had remained, without advance, for many hours, although the pains seemed sufficiently active for its expulsion. One reason why he wished to see me, more particularly, was, because his patient had voided no urine: he had attempted to introduce the catheter, but had not succeeded. I presently relieved the bladder by the flat catheter, and gave the patient ease in that respect. The meconium of the child was evidently passed in the discharges, as was shewn in the streaky substances adhering to the finger after an examination. Being desirous of seeing whether the relief of the bladder would conduce to the advance of the process, I deferred any instrumental assistance for a few hours. I was called again at six P. M. and no progress being then observed, the patient also complaining of becoming exhausted, I readily introduced the short forceps, and had the satisfaction of producing a living child into the world. This case gave no further trouble.

A few days preceding this time, I attended a lady, also in her first child, in a lingering case ; the meconium was passed, in that instance, before the birth of the child, but the child was still-born. There is a material difference in the appearance of the discharges in a protracted labour, when the olive coloured fluid, before alluded to, is evacuated, and when the meconium is expelled before birth. In the former case, the discharge is lighter coloured, uniform, and tinges the finger yellow : in the latter, the finger is covered with streaky substances, and the appearance is blacker.

CASE XLVII.

The Head, partially in the Pelvis, extracted by the Vectis.

ON the 9th September, 1820, I was called in consultation with a gentleman of high practical respectability, to give an opinion upon a case of protracted labour, in my neighbourhood. The patient had been in labour more than twenty-four hours of her third child : she was in her forty-second year : was stout and corpulent in person ; and there was an edematous state of the parietes of the lower part of the belly. Her former labours had been lingering, in which she had been assisted by her present attendant, but they had terminated without producing those symptoms of distress under which she was now

suffering. The Os Uteri was fully dilated, and the waters discharged ; but the head was situated at the brim of the Pelvis, filling up the brim, and the vertex had scarcely advanced one third of the cavity. When the woman was placed on her left side, the face was presenting uppermost, that is, with the forehead under the right groin. The pains were weak and ineffective ; they had been stronger some hours preceding, but now seemed to the by-standers declining. The woman was feverish, and complained of her head. Under such symptoms, it seemed highly desirable that she should not long remain undelivered ; yet I was unwilling to perforate the head, which seemed to offer the only present means of delivery. I saw this patient again six hours afterwards, and found matters in nearly the same state. In the interval, my friend had ineffectually tried the vectis. Unwilling still to open the head, I fixed the vectis upon the forehead of the child, and finding I had got a good purchase, I worked on, till I had, after about half an hour's strong efforts, the satisfaction of finding the head descend, and a living child was shortly afterwards produced into the world.

I confess, I did not expect that I should succeed in the delivery of this woman with the vectis ; but the instrument fixed itself fortunately, and offered me a firm purchase. If this instrument had failed, I meant to try the long forceps.

I think it useless to tire the reader's patience, by the introduction of more cases of this and the preceding descriptions. They must be such every-day occurrences in an extensive practice, as to render their insertion quite needless. Experience will en-

able every gentleman to establish his own principles, much better than any observations of mine can be supposed capable of doing.

CASE XLVIII.

Vaginal Contraction overcome by the Forceps.

ABOUT midnight of Tuesday, November 24th, 1818, I was sent for to Mrs. G. in the Mile-end Road, under a case of difficult labour of her third child, and in the 43d year of her age. A professional gentleman from the country, a relative, was accidentally on a visit at her house, who accompanied her husband to me, and gave me some particulars of the case. He stated, that this lady had borne two children before, and that in each labour, considerable difficulty had occurred, so as to require the use of instruments ; that, in the first labour, the soft parts had received some injury, in consequence of which, a contraction of the Vagina had taken place, which had greatly increased the difficulty in the second, and which had obliged a very experienced accoucheur to have recourse to the unpleasant necessity of lessening the head ; that this occurrence had happened fifteen years ago, in which interval, she had borne no children ; that she had been in labour all the day ; that the pains were then strong and expulsive ; and that the exit of the child's head was prevented by

the contracted state of Vagina. On my arrival at the house, I met her accoucheur, who had been one of those gentlemen in attendance on the last occasion, and who corroborated the principal part of the preceding facts. On visiting the patient, I found a stout lusty woman under strong and frequent expulsive efforts, forcing down with all her power, with a good pulse, and uttering violent ejaculations for immediate relief. Uterine action was almost incessant, and to that degree, as to make a rupture of the Uterus, or other mischief to be feared. An examination ascertained the vertex to be low down in the Pelvis, surrounded by a firm circular band of contraction of about an inch in diameter, considerably within the Labia externa ; against this band, the vertex was impelled with force during each uterine contraction which then became as tight as a cord around it : but in the absence of pain, the vertex rather retreated.

This circular band, therefore, appeared to be partial ; for in the absence of pain I could pass my finger completely within the Vagina, get it round a considerable portion of the head, and distinctly feel the right ear under the pubes.

As there appeared to me no immediate urgency for acting, I waited for some time, watching the effects of pressure on the contracted part, and desiring the woman to withhold her efforts ; with the further view, also, of gaining time to enable me to make up my mind as to the least injurious mode of offering assistance. I was extremely unwilling to open the head, because I thought the child still alive ; and there seemed considerable objection to dividing the contracted part with a scalpel, for fear of increased laceration on the passage of the head through it.

It was evident to the finger, that, in a preceding labour, there had been a laceration or slough in the soft parts, between the Vagina and Rectum, the seam of which was sufficiently perceptible. Viewing the case in all its bearings, upon a consultation with the patient's accoucheur, and her relative, it was determined to try the effect of the forceps, in overcoming that resistance which this membranous contraction offered, and particularly as the head was sufficiently low to be within the scope of the instrument. I therefore applied each blade with little difficulty, and having secured the lock, I gradually proceeded to offer a degree of extractive purchase in assistance of the uterine efforts, and I had presently the satisfaction of having a living child produced into the world, apparently without much injury to the Vagina. The Placenta was thrown off by the natural efforts of the Uterus. No inconvenience followed the operation.

CASE XLIX.

Protracted Labour, under a free presentation, relieved by the Forceps.

ABOUT five A. M. January 25, 1817, I was requested to see a woman in Nightingale-lane, East Smithfield, who had been some time in labour of her first child. On examination, the head was well down in the Pelvis, where it had been jammed for many

hours. The face was presenting to the finger, the irregularities of which were distinctly perceptible, and was placed across the Pelvis, with the chin towards the right side. After watching the progress of the case for some time, observing no advance, and seeing little probability of the head being expelled by the natural efforts, in that unfavourable position, I had recourse to the forceps ; and getting the instrument well fixed, I worked till I had extracted the head. I met with more difficulty, however, than I expected ; and I did not succeed without using considerable force. The child was still-born. I afterwards regretted that I had not perforated the head, for the forcible extraction injured the bladder.

CASE L.

Protracted Labour, relieved by the Long Forceps.

AT six p. m. Thursday, April 8th, 1819, I received a note from a midwife, requesting my assistance to a poor woman in Goulstone-street, Whitechapel, whose membranes had broken twelve hours before, with the Os Uteri completely dilated, and the pains strong, but the head did not advance ; with a notification also, that on a former occasion the head had been obliged to be opened, and that, at present, she had passed no water for many hours. On visiting this woman, I found the head at the brim of the Pelvis,

with an ear to the Pubis, and the face to the right Ilium ; the space from the Sacrum to the Pubes, appeared to me to be about three inches. Unwilling to open the head in this case, because I thought the child might possibly be alive, after relieving the bladder, I applied the long forceps ; and, procuring a firm purchase, I with some difficulty, brought down the head, but the child was not born alive. My efforts were much assisted by the strong action of the Uterus, which continued, and separated the Placenta. No unpleasant symptom followed the exertions I was obliged to use ; though, I must confess, they were such as I should not like frequently to repeat.

As a sequel to the Forceps Cases, I will insert one, which a gentleman, in conversation with me a short time ago, mentioned, which I could not have supposed possible, and, which, had not the account come from such respectable testimony, himself a witness of the fact, I should have thought incredible. He stated, that some years ago, he was requested to open the body of a woman, who had died in child-bed, and, as was supposed by the husband, and his friends, in consequence of mal-practice, on the part of her attendant. On inspecting the body, he found the Uterus, and other adjacent parts, absent. He inquired of the accoucheur how this happened, when throwing himself entirely on my friend's clemency, he acknowledged that in the attempt to withdraw the Placenta, he inverted the Uterus, which he mistook for the head of a second child, and not being able to extract it, he applied his forceps, and forcibly drew the parts away !!!

CASE LI.

The Hand and Arm down by the Side of the Head.

ABOUT half after four A. M. Wednesday, March 29, 1820, I was disturbed by a message from a midwife, requesting my immediate assistance to a poor woman, near Leman-street, under a shoulder presentation. Her note stated, "that the membranes gave way "at six o'clock the preceding morning, (Tuesday,) "but that no pains had come on, till one of the "present morning, when she was called: that she "could not make out the presenting part till half "after three, when a hand and arm came down into "the Vagina." On visiting this patient, the hand and arm were certainly down in the Pelvis, but I readily detected the head at the brim, and ready to enter. The pains were not very strong, but the Os Uteri was dilated. I introduced my left hand into the Vagina, and bending the elbow of the descended arm I gradually pushed it up above the head; keeping it in that situation till uterine action came on, and feeling the head come down, without the preceding impediment, I withdrew my hand. After some active pains, I made another examination, and observing the head regularly descending, I left the case to the care of the midwife, being fully satisfied it would soon be terminated.

The practical point to be determined is, that the head is above the arm, and not the shoulder. There

is little difficulty in returning a hand or an arm, while the head is at the brim of the Pelvis ; but if the head have descended into the cavity, and if it occupy the cavity, the attempt will frequently not succeed. The head must then be allowed to descend under the obstruction produced by the arm, and if the child be born alive, the arm is considerably injured by pressure.

A case of this kind may easily be made one of very considerable difficulty ; either by inadvertently pushing up the head, when completely above the brim, or mistaking a hand for a foot, and pulling it down. In such a case, the shoulder would be brought to the brim of the Pelvis, instead of the head, and turning would become necessary. I remember an instance, in which a midwife told me that she was certain that two hands were down by the side of the head, but after a time, I was called to the case, when I found the shoulder at the brim. What had been done in the interval, I do not know.

CASE LII.

A Foot down by the side of the Head.

ABOUT eight p. m. Friday, November 10th, 1820, my opinion was requested by a respected medical friend, in the case of a lady under protracted labour, whom he was attending, in the Commercial Road,

and about whose safety her husband was becoming extremely anxious. She was the mother of several children, which she had usually passed without difficulty, or much delay, and therefore some unusual cause of protraction was suspected. Her accoucheur had been called early in the morning, and had remained with her the whole of the day; but he had not been able to discover the presentation till within a very short time of my visit, when he detected a foot at the brim of the Pelvis. The labour had proceeded slowly. On making an examination in the usual way, I readily reached the foot with my finger, but I had some difficulty in ascertaining what part was above the foot, though the Os Uteri was pretty well dilated. I therefore passed my left hand into the Vagina, and at the extremity of my fingers, I discovered the head above the brim of the Pelvis, with the foot down by its side. Without withdrawing my hand, I pushed up the foot, and at that moment a strong uterine contraction coming on, the head was brought down into the brim, so that the foot was left above. Keeping my hand in that situation till another pain came on, I found the head descend without the foot. In my attempt to push up the foot, my fingers assailed also a hand just by the side of the head. The case was now left to the natural action of the Uterus, and in about two hours a living child was expelled. The next day the left foot of the child shewed evident marks of the violence offered to it by the hand, in the attempt. The lady suffered no further inconvenience.

CASE LIII.

Fatal Case, from the Size of the Child.

ABOUT four p. m. one Wednesday in 1812, a medical friend sent to me, requesting my opinion respecting a case of labour, near Whit-chapel Church, in which he was engaged. I was introduced to a stout lusty woman, turned of thirty, in labour of her first child. I learnt that the labour commenced on the Sunday evening, that it went on slowly through the day of Monday and Tuesday, till the evening of the latter day, when the membranes gave way ; after this occurrence, the pains became stronger and more active, and there was every appearance of its being finished in the early part of Wednesday. This expected event not taking place, and the friends becoming anxious, my opinion was desired. The urine had been naturally evacuated, and clysters had been occasionally injected this morning. The vertex was now pressing upon the perinæum ; the head had made its proper turn ; the pains were frequent, but short ; and the countenance good. In short, the head appeared to be merely detained by rigidity of the external parts. I gave it as my opinion that the head would be expelled by the natural pains. Between nine and ten in the evening, I was sent for again, because the woman was not delivered. In the

interval of my absence, the head had advanced ; it was now extending the perinæum, and the vertex was protruding. I stopped more than an hour, watching its advance, and being satisfied it must soon be expelled, I left the case to the management of my friend, with every confidence of the woman's doing well. About half after three on the Thursday morning, the husband came in a great hurry, to call me again, and stated that the head of the child had been born some hours, but that Mr. —— could not deliver the body. This information astonished me, but, upon my arrival at the bed-side of the woman, I found it too true. The woman appeared now nearly exhausted ; she had very trifling pains, and had recently undergone a shivering fit. The head had been expelled nearly four hours, but all the efforts Mr. —— could make, had not enabled him to extract the shoulders. Suspecting a large child, from the Pelvis being completely filled, I passed up a blunt hook, and fixing it in the axilla, drew down first one arm, then the other. I was then able to extract the body without further difficulty. The Placenta was separated, and was brought away in a short time. The woman was now in a state of the greatest exhaustion, and from this time declining, she died within two hours. The child was the largest new born infant I had ever seen ; curiosity led me to ascertain its weight ; it weighed sixteen pounds and a half, avoirdupois ; and was broad over the shoulders beyond any example I had ever witnessed.

The extension of the principle of "trusting entirely to the natural powers," led to an error in

the management of this case. It was, however, impossible to foresee the immense size of the child.

CASE LIV.

Rigidity of the Os Uteri relieved by Bleeding.

ABOUT nine in the morning of Wednesday, December 29th, 1813, a gentleman called at my house, to request my attendance upon a lady, not far from Stoke Newington, who had been in labour since the night of Sunday preceding. A medical friend was in attendance, who wished for my assistance. I was introduced to a stout lusty lady, upon the verge of forty, in labour of her first child. Her face was flushed, and apparently swelled; the eye was suffused; her tongue was white; the pulse full and quickened; and she complained of pain in the head. Though she had been in active labour for near forty-eight hours, with the liquor amnii discharged, the Os Uteri was but little dilated; it remained firm and rigid, with the vertex pressing upon it, near the centre of the Pelvis. I was expected to relieve her by mechanical means, but under the present state of the Os Uteri, it was impossible so to do. I advised a quantity of blood to be taken from the arm, an anodyne clyster to be occasionally injected, and desired her to refrain, as much as possible, from voluntary bearing down. In a few hours, the Os Uteri was

found relaxing, and more disposed to give way, and the head of the lady had been considerably relieved by the loss of blood. The labour, in the afternoon, went on more satisfactorily, and she was delivered about seven in the evening, by the natural efforts, of a still-born child. I saw this lady several times afterwards, and always found her in a more improved state⁴⁵.

45 [These cases are important, and should be carefully studied: on the last we shall take the liberty to say, that had the bleeding been carried to a greater extent than it appears to have been, or repeated, instead of using the anodyne injections, the labour would have had a speedier termination.—AM. ED.]

ON

PROTRACTED LABOUR,

UNDER A NATURAL PRESENTATION, COMBINED WITH AN
INCREASED DEGREE OF DIFFICULTY.

UNDER this section are ranged those cases, in which there is such a relative disproportion between the size of the head of the child, and the capacity of the Pelvis, that the head cannot be propelled or extracted whole and entire ; a diminution of its volume, therefore, offers the only chance of delivery, and the sole hope of rescuing the mother from that danger, which otherwise awaits her.

This relative disproportion may exist in various ways. It may either be dependent on an enlarged size of head under natural formation, increased ossification, or disease ; or on a diminished capacity of the Pelvis, either naturally small, (but otherwise well-formed,) or under deformity. It matters not practically, whether the head be too large to pass through a given small Pelvis ; (whether it cannot be lessened by the joint effects of uterine action, and compression between the pelvic bones, into a space sufficiently small to obtain a passage) ; or, whether

the Pelvis be so deteriorated as not to allow it. The most common cause of disproportion will be found in the Pelvis itself; in positive deformity, originating in diseased derangement: in such case, there must be proportional difficulty at the birth of every child of which a woman may conceive. Now and then we find, that diseased organization occurs in a well formed Pelvis, which had previously allowed the passage of a full-grown child. Yet a practical resort to a diminution of the volume of the head may not be confined to such cases alone: it may become necessary under long continued protraction, or under some accidental occurrences of labour, as the safest mode to the mother, and the most speedy means of delivery.

A dreadful degree of responsibility attaches to the accoucheur in every instance of perforation of the head. The operation can never be a matter of choice: it is one of imperious necessity, to which he is impelled, with whatever reluctance, by the strictest sense of professional duty. If the child be alive when the head is perforated, its life is certainly destroyed, and infanticide is committed; but for the reason just stated, viz. that the act is not a matter of choice, it is a justifiable act, not a criminal one. Should we even possess satisfactory proof that the child is dead in Utero, as for instance, under a case of simple, but lingering, labour, with the Funis below the head, devoid of pulsation, though no violence would be offered to the child by perforation, we ought to abstain from an unnecessary resort to it. But if, in such case, the labour should become protracted, rather than allow the mother to run any risk

under the natural expulsion, I would not hesitate to lessen the head, especially if there appeared the least relative disproportion. The knowledge that the child is dead, in itself singly considered, is not a sufficient authority for the operation; it impresses such obvious marks of violence and mutilation upon the head, as leave room for the imputation of misconduct.

I will not attempt to bring forward any arguments in defence, or in justification of Cephalotomy. It can, indeed, be defended or justified on no other ground, than on that of absolute, urgent necessity. The mother is presumed to be in danger from protracted labour, or other cause, and her delivery is found to be impracticable by any of those means, which offer a chance of life to the infant. If the absolute sacrifice of one life be called for, if delivery cannot be effected, with the probable safety of both lives, the life of the child, being the less valuable, is always, in this country, given up to save the mother.

Neither will I deny that a degree of cruelty appears to be attached to the operation; but its apparent cruelty is diminished in the necessity of the case, in the chance of safety offered to the mother, and in the means subsequently afforded of a speedy termination to her sufferings. I have considerable doubts whether the operation inflicts much pain on the infant. I suspect that sensation is much less acute during uterine life, than after the establishment of breathing life. But allowing this to be the fact, do we thence derive any additional ground in favour of the operation on a slight or on an unneces-

sary emergency? Certainly not. It may, indeed, prove some relief to the mind to be convinced, that when the operation is imperiously called for during the life of the infant, it does not produce much bodily suffering, but the absence of sensibility affords no rational plea in favour of its performance. Inasmuch as it certainly destroys life, it can be justified on no other ground than, as above stated, on that of absolute necessity; and the unwarrantable performance of it ought to be amenable to some law. By the *quo animo* under which any wrongful act is committed, is the crime or harmlessness of the act estimated and established. Now, although no professional man can be supposed to be so innately wicked as deliberately and maliciously to destroy an infant's life, yet such an occurrence may happen through professional ignorance; and I wish it was in my power conscientiously to declare, that I have not witnessed such ignorance⁴⁶.

To prevent the possibility of such an occurrence, with the injurious imputations and loss of character thence arising, to dispel every shadow of doubt as to the necessity and propriety of the proceeding, a

46 [In this country it is a melancholy truth, that "Cephalotomy" has been but too frequently had recourse to, and under circumstances which cannot possibly, by any mode of reasoning, be justified. It has been most wantonly employed to facilitate a labour where nothing was required but a little more patience or a little more skill, the practitioner being entirely ignorant of any other mode of terminating it, and too little judgment to duly appreciate the powers of the system, that he might confide in the eventual efficacy of nature. It has within our own knowledge been resorted to, where there was a well-constructed pelvis, and a justly proportioned head, and where there was no accident complicating the labour, to make it a question, which life, mother or child, should be sacrificed. We cannot hold up to too much execration, such flagrant acts of cruelty and ignorance.—A.M. ED.]

consultation should be requested, and the opinion of another judicious practitioner obtained, if near at hand. The judgment of one individual, however experienced, appears to me, in many instances, hardly sufficient to authorize the operation. Perforation of the infantile head is, to say the least of it, a horrible proceeding, from which every man would be glad to refrain if he possibly durst ; and which he would always wish to defer, as long as a sense of professional duty, and the safety of the mother, allowed. It necessarily compromises the life of the child for that safety.

I have already hinted, that the infantile head is so formed, by the interposition of sutures and fontanelles within its bony structure, as to bear considerable compression, and to allow of much diminution in volume without detriment ; yet this diminution has its limits : a full sized head cannot be lessened in bulk from side to side, from ear to ear, much below the space of three inches. If, therefore, the Pelvis of any given woman do not possess a clear space equal to two inches and three quarters from the Symphysis Pubis to the prominence of the Sacrum, a full sized head will either not pass at all, or with the greatest difficulty ; and in proportion as the diminution of space between these respective points prevails, the difficulty of its passage must be increased, in its entire state, even to impossibility. In such cases, the greater part of the head remains stationary above the brim of the Pelvis, in spite of the augmented power of the natural efforts, while a portion of the vertex and scalp only enters the upper part of the cavity,

which remains higher or descends lower, as the Pelvis possesses less or more room at the brim.

Malformation of the Pelvis is always to be suspected in a first child, when, after a due relaxation of the Os Uteri and soft parts has taken place, the head does not descend under expulsive uterine action ; when the head has remained for a considerable length of time in the same position above the brim of the Pelvis, although the pains seem sufficiently efficient for its expulsion ; but it is actually detected by the finger on examination. The more readily the point of the fore-finger reaches the prominence of the Sacrum, the less is the space from thence to the Symphysis Pubis, and *vice versa* ; if this part cannot be reached by a finger of common length, there is little or no deformity. This enquiry is generally made without difficulty, and the information required is obtained with ease ; for, as the greater portion of the cavity of the Pelvis is unoccupied by the head, the finger meets with little impediment to prevent its passage to the point intended. Different steps may be taken to determine the degree of deformity ; if it be considerable, we may form a tolerable conception of it, by remarking, what part of the fore-finger is pressing against the Symphysis Pubis, at the time its point is in contact with the prominence of the Sacrum, and by making a trifling allowance between a diagonal line, and a straight one : but if it be trifling, it will be necessary to pass two or more fingers of the left hand up the hollow of the Sacrum, and keeping one upon its prominence, carry another forward to the Symphysis Pubis, and thus measure the distance in the mind.

Malformation of the Pelvis is also to be suspected when there is obvious deformity of person, which had its origin in infancy ; yet personal deformity may exist in an extensive degree, without malformation of the Pelvis being implicated in the defect of shape : when this is the case, the deformity in shape has taken place after the age of puberty, after the time when the Pelvis has arrived at its full growth and firmness, so that its bones are enabled to retain their proper form. But it rarely indeed happens, that any extensive derangement of the spine is met with, especially towards the lower part, without the form of the Pelvis being more or less affected by it ; so that deformity of person, and malformation of the Pelvis, are usually found to be combined. Any considerable diminution in size without deformity of person, likewise induces a suspicion that the Pelvis may be proportionally small in capacity ; yet we frequently see, that very little women do pass a full grown child with comparative ease.

Under any obvious defect in person or stature, an early examination should be made with the view of determining, with a tolerable degree of correctness, the dimensions and capacity of the Pelvis, and the probability or improbability of the passage of the head ; otherwise, any great nicety, as to this point, is rarely necessary, or is scarcely thought of, until lapse of time, or the appearance of some urgent symptom, prompts a more particular inquiry into the cause of protraction. If a woman be not mis-shapen to the eye, or little in the extreme, it may be presumed that her Pelvis will allow the passage of a full-grown child, till the contrary be ascertained by experience.

The *proper time* when the head ought to be perforated is, in every instance, a material consideration, which must be decided by the nature of the Pelvis, and the state of the patient. In a first child, if there be no apparent deformity of person, if there be not such an obvious mal-formation of the Pelvis, as to be readily detected, we are justly authorized to defer the operation, and to wait the full effects of the natural efforts, in the flattering hope of the descent and exit of the head, until the uterine exertions begin to fail in power, or the general strength to give way. In such a case, the head must be extracted by some convenient and adequate instrument, shortly after the perforation has been made. Similar forbearance is to be exercised in those cases of protraction, which follow the expulsion of a living child on a former occasion. I would here beg to remark, that, in this painful exercise of the patience, a more than usual share of watchful attention is from hour to hour to be bestowed upon the woman, lest the bounds of prudence be surpassed; lest the case be allowed gradually to proceed to that extremity, in which even this distressing expedient may be defeated in its intended objects, the present preservation of the mother's life, and her subsequent recovery. And it certainly offers a greater chance of ultimate well-doing to the mother, when the probable effects of those symptoms, which are indicative of approaching danger, are somewhat anticipated and prevented by timely delivery, than when they are suffered to establish their baneful consequences: the best efforts may then prove useless, because they are called into action too late.

On the other hand, when such a mal-formation of Pelvis is known to exist by the experience of a former lying-in, or can be detected at the commencement of labour, as to preclude all hope of a full-sized head being expelled or extracted in an entire state, it would be useless, nay, little less than folly, to put off the perforation until symptoms of danger shew themselves. By delay, we deprive ourselves of the assistance of the expulsive efforts during extraction, and suffer the patient to be exhausted by unavailable pains, to her future detriment. In this case, some time may generally be suffered to elapse between perforation and extraction, to allow of greater collapse in the head.

The knowledge which is gained by a professional man, in a previous attendance upon a woman who has an ill-formed Pelvis, affords him advantages in her subsequent pregnancies, of no trifling value to her. Being already acquainted with the exact dimensions of her Pelvis, he is enabled to take timely measures for her safety, or to adopt those precautionary modes, which will be presently mentioned, to diminish her sufferings, and to give her babe a chance of life. But it by no means follows, that, because one head has been obliged to be lessened in a former labour, the same unpleasant operation must necessarily be repeated in every subsequent one; other causes, than mere mal-formation, may, in the preceding instance, have called for it. Nor does the passage of a living child, in a former labour, always supersede the necessity of resorting to Cephalotomy in a subsequent one. Disease may have produced

unfavorable changes in the Pelvis in the meantime ; some uncontrollable occurrence at the commencement of labour may demand the operation, or disease and mal-formation of the head may be found to exist. Any of these unexpected events may render this operation necessary, notwithstanding the easy passage of a former child. When mal-formation of the Pelvis has once taken place, it continues through life. The Pelvis may deteriorate in its form, but I believe it never improves.

The lapse of time which ought to be permitted between the perforation and the extraction of the head, must be regulated by the symptoms of each case, and the situation of the patient. Under symptoms of threatened or of actual exhaustion ; under a sudden attack of hæmorrhage, or of convulsions in the early part of labour, calling for the proceeding, extraction is usually attempted soon after perforation, and the evacuation of the cranium ; but when extraction has been quickly performed after perforation, I have now and then been placed in the distressing predicament of witnessing the attempts of the child to breathe, or even to cry, notwithstanding the violence which has been inflicted upon its head. In cases of known or readily detected mal-formation, the perforation is to be made in the early part of the labour, as soon as the state of the Os Uteri, and the soft parts, will permit the safe action of the perforator ; the contents of the skull are to be evacuated ; and the extraction may then be deferred for some hours, to allow of greater collapse and accommodation of the head. Yet, when the Pelvis is much de-

formed, and when the uterine efforts become violent soon after perforation, I do not pursue this practice ; I proceed to the immediate extraction, that I may avail myself of the full and powerful assistance of expulsive contraction.

When the Uterus is allowed to exhaust its powers by continued exertion, a greater degree of forcible extraction is required on the part of the operator, and must be continued for a longer time.

I will not presume to recommend any particular instrument for the extraction of the head. That instrument, to which any accoucheur has been long accustomed, and at the use of which he is the most adroit, will always be preferred. I have hitherto commonly used the crotchet, taking care to protect the parts by my left hand in the Vagina, against the possibility of that instrument's slipping its hold, or against its point making its way through the bones of the skull. But in those cases in which, of late, I have tried Dr. Davis's craniotomy forceps, I have been much pleased with their extractile effects.

The degree of pressure to which the head of the child is subjected in its passage through a contracted Pelvis, frequently destroys its life ; so that even after the child has been naturally expelled, it is found to be still-born. The probability of the loss of life from pressure, is, therefore, now and then, brought forward as an argument for a more early perforation of the head, than would otherwise appear warrantable ; under the specious plea of shortening the mother's sufferings. Such notions cannot be too cautiously entertained ; they ought rarely to be suf-

ferred to influence the practice. I have already observed, that the appearances which are usually considered to be indicative of the death of the child, are, at the best, extremely ambiguous ; though they are not entirely undeserving some notice, they ought to have little weight in determining the conduct on so important a point. With such a plea for premature perforation, the signs of death ought to be so positive, as to leave no doubt that the event has actually taken place. And if the child be certainly dead, no further injury can be inflicted upon its person by perforating the head, but the mother may derive great advantages in protection of parts from pressure, and in alleviation of her general sufferings.

It ever proves a great source of consolation to the mind, to be fully satisfied, that the child has lost its life before the perforator is introduced ; yet I think it will scarcely be recommended, even by the most timid practitioner, that the operation should be delayed, in cases of obvious deformity, until this event has happened from natural causes. Indeed, if the operation be deemed absolutely necessary, from malformation, or other adequate cause, it must be resorted to without reference to the life or death of the child.

Should the child be actually dead at the time the head is opened, little discharge of blood follows the perforator ; and more or less of cerebral substance is presently evacuated. But should the child be then alive, a quantity of fluid blood immediately escapes through the opening, before any portion of the brain makes its appearance.

That any pregnant woman should be rendered in-

capable of producing a living child into the world, at its full time, from her mode of formation, whether natural or acquired, is a melancholy reflection, and is to herself a source of continual and aggravated anxiety. As often as she becomes pregnant, and completes the term of Utero-gestation, her infant must be sacrificed to her safety. To prevent this repeated sacrifice of infantile life, to offer some chance of surviving the birth to the babe, and to ensure a greater degree of security, with a diminution of suffering to the mother, an improved mode of practice has been established within the last half century, and has been adopted in numberless instances, with the most satisfactory success, viz. the act of terminating the process of pregnancy before it has arrived at its full period, of bringing on labour somewhat prematurely⁴⁷.

47 [The practice of inducing premature labour is now sanctioned by a sufficient number of well directed and successful experiments; and is with much propriety considered a valuable resource in the art, where the deformity is not so great as to prevent a child to pass at the seventh month. Before this period, the incomplete developement of the fœtus, renders this operation almost certainly unavailing; and though we have upon record, and we may add, we have seen instances of children living that had been expelled without any unusual violence or difficulty, before this period; yet, the chance of success must be regarded as constantly diminishing in proportion as the period of utero-gestation is diminished, and as the capacity of the pelvis is restricted—and though we consider an attempt to procure premature birth, in a pelvis so narrow as not to permit a child at near the seventh month to pass, to promise but little success to the child, yet it should be considered a justifiable one; since the child may live if this be resorted to, and especially as its destruction is certain, if it be permitted to occupy the uterus beyond this period, unless the Cæsarian section be substituted.

It might be an interesting subject of Forensic enquiry, to ascertain the propriety or right of legislative interference, to prevent or annul the marriage of a female with such decided deformity of pelvis, as should preclude the possibility of giving birth to a living child except by the Cæsarean operation. With a woman so circumstanced, every pregnancy has its victim, and is almost legalised murder. We know an instance where "Cephalotomy" was performed five or six times for as many pregnancies.—*Am. Ed.*]

The mode of effecting this object is so certain, and is so well known to the practical part of the profession, that it is unnecessary for me to enter into any explanation respecting it; besides, it would be highly improper so to do in these pages, since this kind of knowledge should be exclusively confined to the accoucheur; otherwise, it may be applied to the most atrocious purposes. I will merely observe, for the satisfaction of women thus situated, that the patient suffers neither pain nor danger by the means used to bring on a premature birth, and that when the process of labour is established, it usually proceeds to a happy and natural termination. The *time when* this useful expedient ought to be enforced, must depend upon the degree of deformity in the Pelvis. It is only necessary to ascertain its capacity, and to apportion thereto a relative diminution of bulk in the head, according to its probable size at any certain time from the full period. If the capacity of the Pelvis will not admit the passage of the head at the seventh month complete, there will be little chance of life to the infant. If there be merely a contracted Pelvis, or one through which a living child has previously passed, pregnancy may be allowed to reach the eighth month. There is a vulgar prejudice prevalent among women, that a seven months child is more likely to live than an eight months child. This is an erroneous notion: the farther a *fœtus* in *utero* has advanced towards perfection, before it is expelled, the greater probability will there be of its surviving expulsion, and of doing well after the birth.

The principal danger to be apprehended, during the anxious interval of waiting the expulsive attempts of the Uterus to propel a child through a contracted or deformed Pelvis, is a breach in the uterine structure itself, from the violence of its own contractions upon the child. I shall presently submit a few observations on that interesting subject.

CASE LV.

Protracted Case relieved by Perforation of the Head.

ON Thursday, August 17, 1820, I was desired to visit a woman, in Splidt's Fields, in the eastern part of the town, who was reported to have been in labour since the Monday preceding, under the care of a respectable apothecary. I called upon her about half after nine in the morning. Her person was short and corpulent; her legs, thighs, and the cellular texture of the belly, were at this time, and had long been, swelled by effusion into the cellular membrane. She was in the fortieth year of her age; this was her first pregnancy; and she was moreover extremely unwieldy and unmanageable. I was informed by her attendant, that on Monday, at the very beginning of her labour, she had been attacked with several convulsion fits, which were relieved by copious bleeding, and that she had also been bled on Wednesday, to relieve a pain in the side, of which

she complained ; that the Os Uteri had remained firm and rigid an unusual time, giving way with great difficulty ; that the woman had suffered violent pains, and had expressed those pains with vehemence and impatience ; and that she seemed now almost worn out. Upon inquiry into the progress of the labour, I remarked, that the Os Uteri was still not entirely dilated, with the vertex pressing through it ; that the Vagina was also far from being well relaxed ; was tender ; and the external parts were swelled. The vertex had descended as far as the middle of the Sacrum ; but the greater part of the head remained above the brim of the Pelvis, and appeared to me firmly wedged at the entrance. The belly was generally much swelled, but this swelling had only been noticed within the last twelve hours ; the uterine tumour itself was unusually large and tender to the hand ; the bladder had not been relieved for more than forty-eight hours, yet it did not seem to contain much urine. The vaginal discharge was offensive and discoloured ; the pulse was quick ; the countenance sunk ; and the head painful. The woman was also constantly inclined to a senseless doze. Uterine action had been gradually declining for many hours, and had now almost disappeared. Immediate delivery seemed indispensable to any hope of safety, but it was previously desirable to evacuate the bladder. I was, however, foiled in the attempt to pass the catheter, partly from the swelling of parts, and the pressure of the head upon the Urethra, and partly from the extreme unwieldiness of the woman. I could pass the point of the catheter into the Meatus Urinarius with ease ; but the

degree of pressure made by the head against the Pubes was so great, and the woman vociferated so loudly, upon my attempting to push the instrument forward, that I did not think it prudent to persevere. Any other mode of delivery than by lessening the head, and subsequent extraction, was quite out of the question ; I therefore proceeded to the operation without further loss of time ; but my endeavours were materially frustrated by the restlessness of my patient, and by the quantity of fat deposited about the nates. Perseverance enabled me to overcome all difficulties, and I at length succeeded in extracting the child ; in doing which, I derived little assistance from uterine action.

Immediately after the birth of the child, a large quantity of olive-coloured stinking fluid, mixed with blood, made its escape from the Uterus, and some offensive gas was also extricated ; this continued in a smaller quantity for some minutes. The catheter was now introduced with ease, and about a pint and a half of urine drawn off. The uterine tumour continued for some time large, but it gradually and silently contracted itself pretty well. The Placenta was presently found to be lowering, and was removed in a moderate time, without trouble or unusual loss of blood.

The next day this patient had much improved ; she had slept comfortably ; had passed her urine naturally ; and had a moderate degree of lochial discharge, though still offensive. In short, she was promising to do well.

Some part of the swelling of the belly, in this, and similar cases, may, I think, be attributed to the ac-

cumulation of the secreted fluids of the Uterus, under its state of action, which are pent up and prevented escaping by the head of the child completely blocking up the Pelvis. I have repeatedly remarked, in protracted cases, that, in making an examination, and passing one or more fingers high up, fluid of this description escapes in quantity. There can be no doubt that the distension of the bladder added somewhat to the general size.

CASE LVI.

Protracted Case relieved by Perforation of the Head.

ABOUT two o'clock in the morning of the 10th October, 1814, I was disturbed by a respectable tradesman, with an earnest request to visit his reputed wife, in labour of her first child, near Tavistock-square, who told me, that she had been in labour since the morning of the 8th, and that she was attended by a respectable apothecary, who had been in the house since the commencement. I accompanied him to her residence, when I was introduced to a young woman of low stature and slender form, under apparently slight symptoms of labour, with weak pains at long intervals, and certainly, at that time, under no marks of distress, or of present danger. On making an examination, *per vaginam*, I found the Os Uteri rigid, and but little dilated ; the head situated

at the brim of the Pelvis, and well placed, with the liquor amnii still dribbling away. Under these circumstances, I did not think it necessary to remain myself, or to press the personal attendance of my friend, who was desirous of rest. I saw this woman again on the evening of that day, when some little improvement had taken place in the progress, but on a minute examination, I was satisfied there was an indifferent Pelvis, yet that the child might possibly pass. I therefore left her to the care of my friend, with the request, that he would call me again if necessary. The next evening, the 11th, I was informed by a message from my friend, that the labour was going on favourably ; that the head was advancing into the Pelvis ; and that there was every probability of its being naturally expelled. Contrary, however, to these pleasing expectations, I received a pressing call early in the morning of the 12th, requesting my immediate attendance. I then found this woman under symptoms of immediate danger : she complained of pain in the head, and had an anxious countenance ; her pulse was quick, with oppressed breathing ; the belly swelled and tender ; the tongue dry ; and the labour pains were much diminished in power and effect. The head of the child seemed to me to have made little advance since the evening of the 10th. The vaginal discharge was ill-coloured and offensive. Under such symptoms, immediate delivery offered the only hope ; and as the head remained still at the brim of the Pelvis, its perforation was the only resource. I therefore proceeded to open, and to extract the head, in doing which I had to contend with

greater difficulties than I previously expected. The rest of the child soon followed, with little effort, but the Uterus did not contract well. After the child was born, the Uterus felt large to the hand, and in a short time a violent hæmorrhage ensued. Now, placing my right hand upon the belly, and making some pressure, I presently introduced my left hand into the Uterus, and removed the Placenta with ease; after which the flooding ceased, and the Uterus was felt firm and well contracted. I saw this patient, several times after her delivery, and in a moderate time she recovered her pristine state of health.

In those protracted cases in which the contractile powers of the Uterus are nearly exhausted by previous exertion, it is a point of great practical importance, not to be too hasty in the extraction of the body, the breech and the lower extremities of the child, lest the Uterus should be left in an uncontracted state, and the uterine tumour be found large and flaccid under the hand. In these cases there is too frequently a necessity for the removal of the Placenta, by the introduction of the hand, in the absence of active uterine contraction. Under this necessity the presence of the hand usually excites contraction. It is at least desirable, before the hand be withdrawn with the Placenta, that some degree of contraction be felt upon it.

CASE LVII.

Protracted Case relieved by Perforation of the Head.

ON the evening of Saturday, December 6th, 1817, my assistance was requested in a first case of labour, in a young woman near Stepney, which was protracted much beyond the expectation of the attending accoucheur, who was a respectable elderly gentleman. The labour began in a very active manner, early on the Thursday morning, and by the middle of that day, the head had so far advanced as to promise a speedy release to all parties ; but towards the latter part of the day, the uterine efforts began to diminish ; from which time, though there had been trifling pains, the head had remained stationary, a period of forty-eight hours. The elongated vertex now nearly reached the perinæum, yet the base of the skull remained above the brim of the Pelvis. The head was firmly wedged at the brim, and was placed in a diagonal situation, with the forehead under the right groin. The belly was painful to the hand, and the bladder was distended with urine. The woman was much exhausted, and was anxious to be relieved. My first object was to evacuate the bladder. I readily introduced the catheter into the Meatus Urinarius, and passed it forward with little difficulty to its very extremity, but no urine

escaped ; a small quantity of fetid, offensive fluid was merely discharged. I withdrew the catheter and a few drops of blood followed. I now made a correct examination, for the purpose of determining upon the best and most ready mode of delivery ; on withdrawing my hand, it was tinged with an olive-coloured offensive fluid, similar to that which escaped through the catheter. Upon talking over the case with my friend, the perforation of the head seemed to be liable to the fewest objections, and to offer the least injurious mode of delivery. I therefore proceeded to the operation, and in a moderate time extracted the head without much difficulty. The Uterus soon resumed its contractile powers, and expelled the remainder of the child. On the expulsion of the child, a large quantity of olive-coloured offensive fluid was instantly discharged, with a gurgling extrication of gas ; but the infant was not putrid. The Placenta was withdrawn without any particular trouble. I was now desirous of emptying the bladder ; I passed the catheter with ease, and took away above a quart of urine. This patient continued in a state of uncertainty for two or three days, from pain and tension of the belly, attended by febrile symptoms ; which were relieved by leeching and purging. There was also a necessity for introducing the catheter once. I took my leave on the Thursday following ; when the patient was doing well.

In this instance, the catheter must have found a new direction somewhere, and, from the similarity of the fluid discharged through it, to that subsequently escaping on the birth of the child, I am in-

duced to suppose that the instrument passed through the posterior surface of the Urethra, thinned by long pressure, before the head of the child into the Uterus. Be it so or not, no permanent inconvenience was sustained by the parts. Inflation of the intestinal canal, with the sense of painful distension thence arising, is one of the most distressing and troublesome symptoms which follow a protracted case. Whether this symptom arises from a loss of tone in the intestinal canal itself, or is the consequence of long continued pressure from the action of the abdominal muscles in the act of labour, I do not take upon me to determine. This gaseous distension is also an attendant upon the latter stages of peritonæal inflammation. It is always a dangerous symptom; but it may be present without much peritonæal inflammation.

CASE LVIII.

Protracted Case, terminating in Sloughing of the Vagina.

ONE Wednesday afternoon, in May 1811, my gratuitous opinion was asked on a poor Irish woman in one of the streets leading from Whitechapel, who had been in lingering labour of her first child two days. In this case, at this time, there was no distress; the pains were good, and returning at short intervals; the head was well down in the Pelvis, but

was placed diagonally; the Os Uteri was dilated. The bladder was occasionally relieved, and there seemed every prospect of the labour being, in a reasonable time, naturally terminated. I gave that opinion to the midwife, and desired her to watch the case. I visited this poor woman again before bed-time, and finding some advance in the head, I then saw no reason to alter my first opinion, or to interfere. I heard no more of this case till five o'clock the next afternoon, Thursday, when I was called in a hurry by one of her female friends, who said, the poor woman was very bad, and the midwife thought she ought to be delivered. Having heard nothing in the morning respecting the case, I had taken it for granted, that the poor woman was relieved. She had lately been seized with a shivering fit, followed by vomiting of a dark coloured fluid; the countenance was sunk; the discharge, *per vaginam*, was offensive; she was restless, and complained of her head; and there were evident marks of great distress. There being reason to suppose the child to be dead, I opened the head, as offering the quickest mode of delivery; and extracted the child without difficulty. The Uterus contracted, and the Placenta was thrown off naturally.

The next day this poor woman promised to do well; but, in a day or two, it was found that the urine passed involuntarily; and in a few days more fœcal matters were seen escaping, *per vaginam*. As this poor woman was destitute of every advantage to be derived from attention and nourishment: in about ten days after her delivery, I got her admitted into a public hospital, under the immediate care of

a friend. After the first fortnight she seemed considerably improved ; but beginning to decline, she lingered about a month, and then died. The body was removed privately in the night, so that I was denied the knowledge of the extent of the sloughing, which was produced by the long continued pressure of the head upon the parts. On the admission of the patient into the hospital, one of the surgeons remarked, that this injury must have been the effect of my instruments ; that it was impossible the *soft* head of a child could produce such mischief. Had I been so disposed, I might have made an uncourteous retort, by hinting at a similar defect in his own.

CASE LIX.

Protracted Case relieved by Perforation of the Head.

ABOUT the middle of the day of December 21st, 1814, I was called into consultation with a respectable surgeon-apothecary, in the case of a young lady in Wapping, who had been in labour since the evening of the 19th, of her first child, and about whose welfare fears began now to be entertained. The head had advanced well down into the Pelvis, so that the vertex nearly reached the perinæum ; but it was placed diagonally with the forehead towards the right groin, and with the occiput towards the left Ischium. In this situation it had remained many

hours. Notwithstanding the vertex seemed so low, I felt satisfied the head was much elongated, and that its greater part was still above the brim of the Pelvis. At this time, there were some slight pains; but they were neither so strong nor so frequent as they had previously been; the lady complained also of being much exhausted. My first attention was called to the relief of the bladder, which appeared to be distended; but I passed the catheter with ease to its very extremity, without the escape of any urine. The fluid which did pass through the instrument, induced me to suppose that it had pierced the Urethra, and had gone into the Uterus. After waiting in the house a few hours, observing no advance, and seeing no farther diminution of the natural efforts and of the strength, I introduced the vectis, but could make no impression upon the head. About six in the evening, I was under the necessity of opening the head, but even then it was extracted with much difficulty. After the child was born the bladder was effectually relieved by the catheter. But I had now to contend with some trouble with the Placenta. Soon after delivery this lady began to flood, and the Placenta was quite out of reach. I was therefore obliged to introduce my hand for its removal, which proved no easy operation. I found a large part firmly adherent to the fundus of the Uterus. For a few days after delivery, this patient suffered under a retention of urine, which demanded the occasional assistance of the catheter; but this unpleasant symptom presently disappeared, and the lady recovered. She has since become the mother of several living children.

CASE LX.

Tumour in the Pelvis, producing great Difficulty.

IN April 1815, I was bespoke to attend a lady near the Mansion-house ; and upon calling upon her, I learnt that some years ago, she had passed a living child without difficulty : that about two years before, she had a bad labour, in which, after its continuing for several days, the child was destroyed, and obliged to be extracted by force, and that she narrowly escaped with her life. Having now advanced beyond the fifth month of pregnancy, she suffered much uneasiness in her mind for the result of her ensuing accouchement, and wished to place herself under my care. She was tall in person, and apparently well formed ; but it was evident, that some mal-formation or disease had taken place in the Pelvis, between the two preceding lyings-in. I was therefore anxious to ascertain whether the same obstacle to the passage of the child still existed. An examination being allowed, I found a large tumour, of considerable solidity, but of what description I am still ignorant, filling up nearly the whole cavity of the Pelvis, so as scarcely to admit the free passage of two fingers to the brim. This information placed me upon the alert, and gave me some idea of the difficulties I should have in future to contend with. I extended my inquiries to the nature of the preceding labour, the degree of dif-

ficulty attending it, and the danger following it ; and having made myself acquainted with these facts, as far as I was able, I proposed the induction of premature labour, as the most likely means of diminishing the patient's sufferings. The proposition was readily acceded to. I was now desirous of a consultation, as well for a sanction to the proceeding, as for determining the most proper time for putting it in practice. Two celebrated professional accoucheurs met me in consultation with Mr. —— who had been present at the preceding difficult labour. After all the inquiries we severally could make, the induction of premature labour appeared to all to be impossible, inasmuch as the tumour so far prevented the introduction of the hand, that the finger could not be carried sufficiently high to reach the Os Uteri. In this dilemma we had no alternative, but to let the woman go to her full time, and take her chance. Her labour commenced in the fore part of Tuesday, July 25th, and went on slowly till evening, when the pains began to quicken ; about midnight I was called, and found the Os Uteri dilated, the liquor amnii discharged, the pains very active, the head high at the brim of the Pelvis, and scarcely sufficient room to admit two fingers through the Pelvis. I sent to Mr. ——, who had been requested to be again present, but he was not at home. The pains rapidly increasing in power, I determined immediately upon perforating the head, with the then intention, after evacuating the brain, of leaving it a few hours for collapse, before I extracted it ; but this intention I did not pursue. After the

perforation was made, the labour pains soon became expulsive ; I was now desirous of taking advantage of their powerful efforts to assist me in the extraction of the head, I therefore introduced the crotchet, and getting a good purchase, the Vagina at the same time somewhat relaxing, I got down the head by little and little, till I at length extracted it, quite crushed together. The operation took up more than four hours of very great exertion on my part. The body of the child soon followed, and the Placenta was naturally excluded. The tumour was still in its original situation, but the Vagina felt flaccid and loose. I was apprehensive that subsequent mischief might ensue from the pressure of the head, and the degree of violent force I was obliged to exert in the extraction of the child, but none, to my knowledge, followed. I watched this lady carefully for two or three weeks : during this time, she had several rigors, followed by febrile symptoms ; but I saw no marks of suppuration, or any such process. The unfavorable symptoms gradually declined, and she got well in a moderate space of time, and continues so at the present period.

This case presented more serious difficulties *in prospectu*, than any one I had ever met with ; yet it terminated more happily than could previously have been supposed. I am fully persuaded, that, by taking early advantage of the expulsive efforts, I was enabled to finish it much sooner, and, upon the whole, with much less trouble to myself, as they essentially assisted my extractile purchase. I was not allowed any examination of the state of the tumour, or parts, after delivery.

CASE LXI.

Difficult Labour, produced by a Tumour in the Vagina.

ON the morning of Thursday, September 24, 1818, I was summoned to give my opinion in a case of labour, in a lady who had passed two living children on former occasions, without difficulty, but, in the present instance, the birth was prevented by some uncommon obstacle. This lady had suffered unusual pain in her back for the last five months, which had repeatedly threatened labour, and her accoucheur had been called in consequence of the repeated returns of pain five weeks before the present time, and had remained in the house one night, but the symptoms then subsided. The process commenced the preceding evening, when her accoucheur was again sent for ; it had advanced gradually during the night, and the membranes had given way in the early part of the morning ; but the head was prevented descending by a tumour of considerable size in the Vagina, which almost blocked up the passage. At the time of my visit, the pains were active and vigorous ; the Os Uteri was dilated to the diameter of about two inches, and was soft and flabby ; the head was resting upon the Os Uteri, with a hand down by its side ; a tumour of considerable magnitude was felt in the Vagina, below the head, apparently appended to the fore part of the Os Uteri by a broad expanded base,

of the size and shape of a goose's egg, and offering considerable resistance to the finger. After watching the effects of the labour-pains for several hours ; finding the *Os Uteri* completely dilated ; observing that the advance of the head was prevented by this tumour, and remarking that it was indisposed to give way, we determined upon lessening the head ; and even after perforation, the head was not extracted without the exertion of considerable efforts.

The lady recovered without inconvenience, and became again pregnant. She would not submit to the induction of premature labour, which was proposed about the eighth month. She fell into labour in November 1819, and, after a very lingering case, she expelled a dead child. The tumour was still in the *Vagina*, but it was much diminished in size. She had again a happy recovery.

CASE LXII.

Protracted Labour, produced by a Tumour between the Vagina and Rectum.

ON Friday evening, July 19th, 1816, Mr. W— called upon me to take me along with him to visit a poor woman in Skinner-street, Bishopsgate-street, who had been in labour of her third child a longer time than usual. Introducing my finger *per Vagi-*

nam, I felt a large soft tumour, not unlike the breech of a child, in the Pelvis ; but examining more accurately, I could pass my finger before and above it. and then I discovered the head of the child lying at the brim of the Pelvis. I afterwards examined *per Rectum*, and could feel the tumour anterior to my finger. It was therefore situated between the Rectum and the Vagina. The liquor amnii had been discharged for some hours, but the pains were not violent. On Saturday morning, things remained in nearly a similar state without much advance of the head. During the course of this day, the pains became more active, so that towards evening the woman felt herself exhausted ; still there was little progress. The head was pressing upon the tumour, which did not seem to give way. Seeing no probability of the passage of the head in its entire state, I introduced the perforator, and extracted the head with difficulty. The labour was finished in a common manner, and the woman recovered without further inconvenience. During the operation the tumour seemed to give way from compression : after delivery it was still perceptible, but more extended, and less firm.

CASE LXIII.

*Protracted Labour, with an Opening between the Rectum
and the Vagina.*

ABOUT noon of Tuesday, July 9th, 1816, I received a note from a charity midwife, desiring me to see a poor woman in Cooper's Gardens, Hackney Road, who was stated to have been in labour since the Saturday, of her eighth child ; the seven preceding ones had been all born living. Age 36. The head lay at the brim of the Pelvis, which had a more prominent projection of the Sacrum than usual ; the Os Uteri was undilated, and the woman's strength good. I directed that she should lose some blood, and that a clyster should be occasionally thrown up, not doubting but that the process would by and by improve. About nine, the next morning, I received another note, to say that the poor woman was getting lower, and the pains weaker ; that the Os Uteri was dilated, but the head did not advance. On an examination, I found the woman as represented, moreover, the fæces were evidently passing *per vaginam*, as the eye and the nose too readily detected ; on further inquiry of the midwife, it appeared, that this had been the case for some hours, and that there had been no passage by the anus since the clysters were thrown up. Here.

then, was an opening between the Rectum and Vagina, but the finger could not reach it. The head being still at the brim of the Pelvis, after relieving the bladder, I perforated it, and extracted it with difficulty : the Placenta gave no trouble. After delivery the Rectum and Vagina were both washed out with warm water. I attended this woman daily for some time, but I could not learn, that, after delivery, any foecal matters passed *per vaginam*. Opening medicines always produced their proper effect. I left her convalescent. This is the only case of the kind I have met with.

CASE LXIV.

Unexpected Recovery from long protracted Labour.

ABOUT half after one of the morning of Wednesday, October 16th, 1816, I was disturbed by a person wishing me to go to the assistance of a lady, in labour of her first child, in St. George's Fields, who was declared to be in great danger. I was driven to the address as rapidly as possible, and there met with two friends in attendance. This lady's labour had commenced on the Saturday evening preceding, in an active manner ; during the course of the night her attendant was called, who found a correct presentation with the usual occurrences of labour, and

pleased himself with the prospect of not being long detained. Sunday, Sunday night, Monday, and Monday night, passed over in anxious expectation of the desired event, but without pressing symptoms of danger. On the Tuesday morning, the lady's friends becoming anxious from the delay, Mr. K. called in a neighbouring gentleman, to get his opinion respecting the case, and to quiet alarm. He saw the patient several times during the day of Tuesday, and observing the pains weakening, and the woman's strength declining towards night, he tried to deliver with the forceps, but failed in the attempt. I found this young woman completely delirious, with a rapid small pulse, a foul tongue, and every symptom of exhaustion: the labour-pains had nearly subsided. The vertex was near the perinæum, but the head was placed diagonally. The discharges were offensive, and the scalp and bones of the head loose. There was, in this case, no other alternative than immediate delivery, but even that seemed to offer little chance of recovery to the patient; and delivery, by perforating the head, was unanimously agreed upon, as the readiest and safest mode. I therefore proceeded to the operation, but had to contend with more difficulties than I at first expected to meet with. After the extraction of the child, we had much trouble with the Placenta, which was at length withdrawn by the introduction of the hand. The Uterus was now moderately contracted. I left the patient about five in the morning, with little hopes of her doing well. About an hour after my departure she had a violent rigor, which continued

some minutes, and which justly alarmed her attendants. After this subsided, she went to sleep, and slept some hours. I saw her in the afternoon of the next day much recruited. From this time she went on improving, and suffered no particular inconvenience from the effects of her labour.

CASE LXV.

Protracted Labour, from Adhesion of the External Parts.

ABOUT mid-day of Friday, January 24th, 1817, Mr. W. called upon me, with a request that I would accompany him to see a poor woman, in St. George's in the East, who had been in labour since the Wednesday evening, but in whom there was not a sufficient external opening for the passage of the child. He told me that he was given to understand, that this woman had a difficult labour nine years before, and that he suspected adhesion of parts to have followed local injury. On passing the finger, the head of the child was felt pressing upon, and extending the perinæum, in such a manner, indeed, as to threaten to force its passage through the Anus, instead of through the Os Externum, which consisted merely of a small circular opening scarcely large enough to admit the finger freely. The finger introduced into the Rectum, detected the head strongly pressing

against the barrier separating the Vagina and Rectum. In this situation the head had remained for many hours ; the pains were still violent, but no dilating impression could be made upon the parts. Ocular inspection evidently shewed that adhesions had taken place, the probable consequences of previous injury. Under this state of things, a division of the adherent surfaces became necessary to allow the head to pass, and I went to the London Hospital to procure that professional assistance which the case demanded. Meeting with a surgical friend, I requested him to attend me to a case of midwifery immediately. Of midwifery ! said he, in astonishment, I never attended a case of midwifery in my life ! Well, said I, but I wish you to make a sufficient external opening for a child to pass through, in a woman who does not possess one. I will do any thing you direct me to do, answered he, but I will take no responsibility respecting the case. On exposing our patient, I explained to my friend what I wished to be done ; he immediately saw the propriety, nay, the necessity, of the measure, and introducing a scalpel upon his finger, he made an incision of some length, first anteriorly towards the Urethra, then posteriorly towards the Rectum, so that the external opening was materially enlarged. This being done, the vertex immediately occupied the opening. I then introduced the forceps, and was about to extract the head, but finding there would be great danger of increased laceration of the new made wound, if the head was either extracted or allowed to pass entire, it was judged prudent to withdraw the

forceps, and to lessen the head. It was soon extracted, without increase of mischief. Attention was recommended to the healing of the wound, and the woman presently got well. A physiological question was here naturally excited: how did the woman become impregnated? The parts were certainly not of that capacity to allow of a proper marital embrace. There was also this peculiarity about the parts, that the Urethra was so extended as readily to admit the finger into the bladder; and before the parts were examined by the eye, the Urethra was supposed to be a bag or pouch formed by inflammatory adhesion in the fore part of the Vagina. I will merely make one other remark, viz. that notwithstanding this singular extension of the Meatus Urinarius, and the operation, the woman passed her urine the next day with the greatest freedom. Mr. W. informed me, not long ago, that this woman was again in a family way.

CASE LXVI.

Protracted Labour, produced by Deformity, with a Face Presentation.

SEPTEMBER 21, 1819, I was sent for into the City Road, to see a young woman who had not been many hours in labour of her first child. I immedi-

ately detected a face presentation, with a mal-formed Pelvis. The Os Uteri was but little dilated, and the waters had been discharged about three hours. The labour-pains were frequent but short. I told my friend, who asked my assistance, that, in all probability, the head would not pass, but that it would be premature, under the then state of things, to perforate it immediately. About eight the next morning, I was again called : the pains had been active during the night, and the Os Uteri was more dilated ; otherwise the state of the labour was similar to that of the day preceding. As it seemed impossible to us, that the head could pass entire, I perforated it on the frontal bone, not far from the anterior fontinelle, and getting a good purchase with the crotchet, I extracted the head after much effort. The Placenta was separated by uterine action and withdrawn. No bad symptom followed.

CASE LXVII.

Protracted Labour, produced by Ascites in the Child.

IN the forenoon of Wednesday, February 26, 1817, a man came in a hurry to my house, and begged my immediate attendance upon his wife, in Wentworth-street, Spitalfields. He said, the child was partly born, but that it stuck in the passage, and that Mr.

A—— could not get it away. I accompanied him, and found the case as he had represented. The feet were external; the legs, thighs, and breech of the child were in the Vagina; all the parts above were in the Uterus. This woman had previously passed several children without any difficulty. She had not, in the present instance, exceeded her seventh month, but had considered herself uncommonly large: she had been in slow labour for two days, and Mr. A—— had been in the house for the last twelve hours. Mr. A—— told me that the breech presented, and came down slowly; at length getting hold of the legs, he brought down the feet some hours before; but that all the extractive efforts he durst use, had failed in bringing down the body. I was immediately aware, that some resisting obstacle, originating either in disease or mal-formation, could alone prevent that descent. The poor woman was already much exhausted by the protraction of the labour, and by the efforts which had been ineffectually made for her relief: immediate delivery seemed therefore called for. Getting hold of both feet in a napkin, I brought them gradually to a full bearing, and passing my hand along the fore part of the child, I met with a soft puffy *something*, which filled the brim of the Pelvis, and which seemed to me to contain air or water. I passed the perforator along my hand against its most prominent part, and piercing it, a quantity of serous fluid instantly escaped to the amount of several quarts. The body of the child was now brought down with ease, and the head soon followed. But a second child was then detected in

the Uterus. The exhausted state of the woman did not authorize me to wait for its natural expulsion ; I therefore passed my hand and brought down the feet. This child was also lifeless. The Uterus contracted, and the double Placenta was thrown down into the Vagina, which was by and by withdrawn. This poor woman recovered from her exhausted situation, without the intervention of any symptom worthy notice. On inspecting the body of the dropsical child, the legs, arms, and head, exhibited the usual appearances of a child about the seventh month, but the parietes of the belly had been astonishingly distended, so as to hold several quarts, by the fluid contained within the peritonæum. The abdominal viscera were healthy, but appeared to have suffered from the compression of the fluid.

This was a case of true Ascites before birth ; the only one I have ever seen. The second child was of the usual size at seven months.

CASE LXVIII.

Protracted Labour, produced by Hydrocephalus.

IN the forenoon of Tuesday, April 11th, 1815, my opinion was desired by a surgeon-accoucheur in a case of protracted labour, in a respectable woman near Barbican, who had been ill since the Saturday

morning preceding, and who was the mother of several children, which she had always passed without previous difficulty. I found that only a very small portion of the head of the child had advanced downward, although there seemed to be a well-proportioned Pelvis, and although the woman had long suffered under expulsive pains, which were at this time on the decline. The scalp, covering the descended vertex, was flaccid to the finger, and there was a singular looseness of bones. I passed my left hand into the Vagina, for the purpose of a more accurate examination ; I could then detect a size of head above the brim, from some cause, far too large to pass entire through the Pelvis, and I felt immediately convinced of that fact. The woman being already much exhausted by the efforts she had undergone, we determined upon perforating the head immediately ; and on the introduction of the perforator, several pints of serous fluid, similar to the liquor amnii, instantly escaped. The bones of the head immediately collapsed, so that it was quickly propelled through the Pelvis by uterine action alone. The Placenta gave no trouble.

Upon examining the head after birth, the bones and sutures were much extended by the fluid collected within the cranium, by which also the brain was compressed. The child was otherwise of its proper size ; its body and limbs were by no means emaciated. In this instance, the fact that the woman had passed several children on former occasions with ease, led me immediately to suspect the cause of protraction to be in the head of the child, and not in

the Pelvis. I therefore directed my inquiries to that point, and acted accordingly.

I saw this woman daily, for two or three days, during which she appeared to promise to do well: but I was some time afterwards told by the gentleman in attendance, that after I had ceased my visits, sloughing of the bladder took place, under the irritation produced, by which she gradually sunk, and died within the month after her delivery.

CASE LXIX.

Protracted Labour, produced by Hydrocephalus.

IN the afternoon of Sunday, May 7th, 1815, a mid-wife wrote to me, desiring my immediate attendance on a poor woman in the Kingsland Road, who had been in labour three days; who had just been taken with a fit, and who seemed dangerously ill. I saw the woman immediately, and learnt that she had brought several children into the world before, without any particular difficulty. She now seemed much exhausted, and had been attacked with several shivering fits. The vertex had descended a little into the Pelvis; the Os Uteri was completely dilated, and had been so for the last two days; the bones of the head were extremely loose, but the greater part of the skull was above the brim. Being persuaded that in

this case also, there must be some particular cause of protraction from mal-formation in the child, I immediately perforated the head. Several pints of fluid instantly escaped, the head collapsed, and was soon extracted by the crotchet. The Placenta being safely removed, I left the woman in expectation that she might do well: but the next day I was informed, that she did not survive through the night.

It will be seen by a reference to dates, that within the space of a month, two of these cases occurred to me, in each of which, from the known fact of the women having had children before, such a degree of protraction was allowed, in the hope of natural relief, that neither case terminated favorably. When, therefore, long protraction does occur, under sufficient pains, in a woman who has passed children before without difficulty, the attention should be called to the possibility of disease or mal-formation in the child.

CASE LXX.

Protracted Labour, produced by Hydrocephalus in a First Child.

ON Saturday, November 8th, 1817, a midwife requested I would give her my opinion respecting a poor woman in Long Alley, whom she was attend-

ing, in lingering labour of her first child. The reason of my being then appealed to was, that the midwife had been with the woman two nights, as she thought, unnecessarily, and the people about her still insisted upon her stopping in the house. I called upon the poor woman, and finding the Os Uteri undilated, the head lying at the brim of the Pelvis, and the pains trifling, I released the midwife from her present attendance, and ordered her to be sent for when her services were required. Sunday, Monday, and Tuesday, passed over in nearly a similar manner; the woman had pains, the Os Uteri became dilated, but the head did not advance; the woman's strength, however, continued good, and she passed her urine. The midwife was now almost in constant attendance, and frequently apprized me of the progress of the labour. I called upon this woman occasionally, and on Tuesday night I had determined upon delivery, by perforating the head, simply from lapse of time; but after watching the patient for some hours, observing the pains to be improving in power, the head to be advancing, as I thought, and the strength to continue good, I desisted, for the present, from putting that intention in execution. Early on the Wednesday morning, I received a note, informing me, that the poor woman was still undelivered, notwithstanding that the pains had been strong during the night; that the head had made no advance, and that no urine had been passed. Finding myself so deceived in the unexpected protraction of the case, upon an early visit, I passed my left hand into the Vagina, to examine into the source of obstruction,

and I observed that the bones of that portion of the vertex, which was entering the Pelvis, were extremely loose and flaccid ; that the head completely filled up the brim ; and that by far the greater part was still above the brim : the Pelvis itself seemed well-formed. After relieving the bladder, I determined upon perforation, and introducing the perforator, a quantity of serous fluid instantly escaped ; the bones immediately collapsed, and the head was soon propelled by uterine effort. The Uterus continued to contract, and threw off the Placenta. The woman recovered in the usual time, without any particular symptom. I have reason to suppose that the child was alive at the time of perforation. The head was at least four times the size of a common sized head.

CASE LXXI.

Protraction, produced by Mal-position of the Head.

ABOUT eleven, A. M. Tuesday, February 29, 1820, a midwife sent me a note, stating, that she had been attending a charity patient, near Bethnal Green, in strong labour of her fourth child, thirty-six hours ; that the waters had been discharged more than thirty hours ; that the pains had been strong and frequent, but were now weak and distant ; and that the poor woman was nearly exhausted. The midwife had

been induced to wait so long, because the woman's former labours had been quick and successful. My visit found this woman as the note expressed, but in a worse situation than I expected ; her countenance was sunk and depressed ; her eye languid ; her pulse quick and feeble ; the belly was tender to the touch ; her breathing oppressed, and uterine action languid. In short, the poor woman had nearly reached the achm  of exhaustion. The forehead was presenting directly to the Pubes ; the vertex had descended opposite the middle of the Sacrum, but the great part of the head was above the brim of the Pelvis, so that an ear could not be felt, and the head was firmly wedged in the brim, so that the finger could with difficulty be passed around it. On withdrawing the finger, it was covered with a foetid olive-coloured slime. This poor woman had fallen down stairs about ten days before, by which she had hurt the lower part of her back ; and to this she attributed her difficulties. No further delay could, with propriety, be allowed ; and, the case admitting of no other mode of delivery, I proceeded to lessen the head, and extract the child. Considerable force was necessary in the operation, so that the nose was completely flattened by pressure against the Pubes. The Uterus contracted, and, almost unassisted, effected the expulsion of the body and legs of the child ; but after the birth of the child, this viscus was large under the hand. After some time, flooding came on, which obliged me to introduce my hand for the removal of the Placenta, which was adherent through a large portion of its substance. On withdrawing

the Placenta, the Uterus contracted well. The next day this woman was much revived, and rapidly recovered from this state of imminent danger.

This was one of those unaccountable cases, with which we now and then meet in practice. The Pelvis was certainly small, but not mal-formed. The misplacement of the head, with its indisposition to accommodate itself to the capacity of the Pelvis, proved here the cause of protraction.

CASE LXXII.

Protraction, produced by Rigidity and Swelling of the Soft Parts.

AT ten at night, on Thursday, February 24, 1820, a respectable tradesman near Holywell Mount, wished me to meet Mr. N. that evening in consultation upon the case of his wife, who had been in labour of her first child several days, and to whom he had been married eleven years. I found the patient low in stature, corpulent, and verging towards forty; with edematose legs and thighs. A natural labour began on the Tuesday. The process went on slowly till Wednesday morning, when the waters were discharged; afterwards it became more active, and strong pains continued through the day and night of Wednesday, and through the day of Thursday, not-

withstanding which, the head did not advance ; it had remained stationary for more than twenty-four hours. The Os Uteri was now dilated ; the vertex had descended about one-third into the Pelvis ; the rest of the head was above the brim, and jammed against it. The discharge was of an olive colour and offensive. The lower part of the belly was edematose, as were also the external parts, which, from that cause, were much swelled. The countenance was at present good ; the head free from pain, and the pulse firm ; but she had frequent eructations, and complained much of being troubled with wind. Pressure on the uterine tumour caused pain : it was, indeed, unusually tender. Uterine action returned at intervals, but in a diminished degree, in comparison with the day preceding. This state of things promised little probability of such improvement as to preclude the necessity of instrumental assistance ; yet, as the woman's strength remained good, and her spirits but little impaired ; as she persuaded herself that the child was still alive, and was anxious after so long a marriage to have a living child, and as there appeared no possibility of delivering her at this time except by opening the head, though the Pelvis did not seem to be mal-formed, we determined, in consultation, to wait till the morning. On Friday morning the labour was in *statu quo*. The head had made no advance, and the pains were evidently much weaker ; she had dozed frequently in the night, but was not refreshed. She now complained of head-ache ; the tongue was dry, the skin hot, and the pulse quickened. The external parts were swollen and tender ; and the belly was painful. The

bladder was not distended. The discharges were very offensive. After a short deliberation, delivery was determined upon, and the head was perforated : an indescribable offensive smell immediately met the nose, shewing that putrefaction had already advanced in the child. After evacuating the brain, extraction of the head was much impeded by the instrument repeatedly tearing away parts, in consequence of the little resistance they offered. At length the head being brought down by persevering efforts, still greater difficulties were to be encountered. Extraction of the body resisted all the attempts I could for some time make, even with a napkin tied round the neck of the child : by and by I passed a blunt hook into the axilla, which brought down an arm ; the other was got down in a similar manner. Notwithstanding this, great force was required to extricate the body. The difficulty was then explained in the degree of putrefaction the body of the child had taken on, and the quantity of gas evolved. Besides the child was a very large one.

The Uterus offered little assistance during the extraction, and, after the birth of the child, it was large and tender. After some time it became necessary to withdraw the Placenta by the hand ; this being done, the Uterus was left well contracted. The woman bore this operation of more than two hours, with unusual fortitude, and was left in as favorable a situation as could be expected. The next day she had passed urine repeatedly ; had got sleep ; and was free from febrile affection. Within a fortnight from this time, this woman was quite as well as after the most favorable labour.

CASE LXXIII.

Successful Result of the Induction of Premature Labour.

ON the 9th of April, 1810, I was called, towards evening, to the assistance of Mrs. ——, near the Tower, in consequence of the gentleman engaged to attend her, leaving her abruptly, a few hours before, under the pretence of illness, and refusing to return. He had been in the house two days and two nights, and either became tired of his job, or was fearful of some occurrence which he was unable to manage. At this time the head was well down in the Pelvis, the patient's strength was good, and the pains were powerful. I soon detected a diagonal position of the head, and a small Pelvis ; but after ten hours patience, a small living child was naturally expelled.

In January, 1812, I was again requested to attend this woman, and being called in the early part of the day, I felt, through the membranes, the hand and arm of the child. I remained in the house the whole of the day, watching the case ; towards evening the Os Uteri became dilated ; the membranes gave way, and I detected the shoulder at the brim of the Pelvis ; I turned the child with ease, but having withdrawn the body, the head, being large, stuck at the brim, and I was compelled to use much force in extracting it. The child was of course still-born. In May,

1813, I was desired to take charge of this patient a third time, and after two days and two nights severe suffering, her strength began to give way, while the head was completely above the brim of the Pelvis, and I was under the painful necessity of lessening the head. She became pregnant a fourth time; and having been so unsuccessful in the two preceding instances, and knowing that, if there was a large child it would pass with difficulty, I advised her to submit to the induction of premature labour at, or a little before the completion of the eighth month. She did not hesitate, and the proceeding was adopted in September, 1814. Labour came on three days after, and a living child was, with comparative ease, expelled after short suffering, and she was soon abroad, nursing her child. In three more successive pregnancies, viz. August 1816, June 1818, and January 1820, I have pursued the same plan, and with one exception, have had the satisfaction of seeing living children produced; in all the four instances, the mother recovered as well as any woman under the most simple process of labour. I have seen this patient within a short time past; she is now (October 1820,) nursing her last child, nine months old; which, though small at its birth, at about seven months and a half, is, at present, as large a child as I almost ever saw.

I have had numerous instances of the successful issue of similar cases, but I do not think them worth recording.

CASE LXXIV.

Perforation of the Head, under the Induction of Premature Labour.

IN the Summer of 1814, I was bespoke to take charge of a lady in the City, in her next accouche-
ment, which was expected to take place, if she were allowed to complete the full period of pregnancy, sometime about the middle or latter end of August. I was aware that the lady had a bad Pelvis, because in two previous labours, the head had been obliged to be lessened by her accoucheur, and, in one of them, she had sustained some injury in the bladder. I proposed the induction of premature labour, to which she expressed some hesitation at the first. Desirous of satisfying her scruples, both as to the principle and the time, I requested a consultation with an eminent friend on the point. We met on the 23d of June, and after the most correct examination, neither my friend nor myself could detect the uterine tumour through the parietes of the belly; our patient being a low, fat woman. The Os Uteri had a ragged feel; very different, as we thought, from the Os Uteri of a woman seven months gone with child. But what added to my caution, was, a determination not to be again deceived by this lady, for in the year preceding, I had been bespoke to

attend her in her lying-in, when she proved to be not pregnant. We therefore agreed to meet again in a month, and then to make another inquiry, and proceed as circumstances might dictate. We accordingly met on the 21st July, and we were then persuaded, from appearances, that she was eight months advanced in her pregnancy. We persisted in the propriety of the proposed measure ; and the steps necessary to forward that object were taken on the afternoon of the 23d. The 24th, 25th, and 26th July, passed over without symptoms of labour ; early in the morning of the 27th, some slight pains came on, which induced the nurse to call me about nine A. M. Presently the pains became stronger, so that by the middle of the day, the Os Uteri was completely dilated, and the efforts became violently expulsive, yet the head remained at the brim of the Pelvis. After some hours exertion in a very hot day, the Funis came down but pulsated ; towards evening, finding the head did not advance satisfactorily, and fearing some mischief from the violence of the efforts and the heat, I called in my professional friend, to have his opinion on the state of the case. On making the most correct examination, and viewing the case in all its bearings, and especially as to the safety of the mother, my friend proposed the perforation of the head, which was presently effected, and the labour thus concluded. The lady recovered well, yet the event produced much unmerited dissatisfaction. The space from Pubes to Sacrum was under two inches and a half.

CASE LXXV.

Difficulty, produced by a very deformed Pelvis.

ABOUT two P. M. on Friday, November 3d, 1820, during a short absence from home, a woman came to my house with a melancholy tale to my servant, respecting a poor woman in Swithin's-lane, whom she represented to have been in strong labour for two days, with two medical gentlemen with her, and requested him to send me to her assistance as soon as possible, with proper instruments. My servant did not fail to depict the case, on my return, in the darkest colours, to draw my immediate attention to it. On obeying the summons, I was conducted into a miserable attic, in which lay a short, deformed, ricketty woman, in labour of her first child, with only one helpless attendant ; by whom I was told, that the membranes broke on the Tuesday evening preceding, without any pain, and that the waters dribbled away through the night : that on Wednesday pains began to come on briskly, on which she sent for the midwife, whom the woman had previously engaged to attend her during her lying-in ; she stayed with her for a while, and then left her. Some time after, the midwife was called again, but being from home another midwife supplied her place ; after she had waited some hours, (probably not liking the complexion of the case,) she requested a

neighbouring accoucheur might be called, and took herself off. This gentleman finding, after many hours attendance, that the head of the child did not advance to his expectation, notwithstanding there was no want of pains, asked the opinion of a neighbouring friend on the case; who, after several visits, and further lapse of time, not caring to grapple with the difficulties the case presented, desired that I might be sent for. I now made an examination alone, and detected a very deformed Pelvis, with the head of the child entirely above the brim, and the Os Uteri open, soft, and flabby below the vertex; a long fold of the Funis was also hanging out of the external parts, without pulsation. At this time the pains were short and trifling, but there were no symptoms of general exhaustion. Before I determined on taking any steps for the poor woman's relief, which she earnestly begged in the most pitiable manner, I desired that both the gentlemen who had seen the case might be called, and they were shortly with me. On their entrance, I said, "Well, gentlemen, you have got "an awkward case here, there is a very bad Pelvis." "Yes," replied an old friend, "we did not like the "look of it, so we sent for you to try your hand at "it, as you are in the frequent habit of managing "difficult cases." I thanked him for his preference, well aware whence it arose: my friend's manner, at the same time, convinced me that he thought I should be foiled; had I not succeeded, it would have been my first failure for many years. All were immediately agreed that there was no possible alternative but in lessening the head, and both gentlemen expressed their doubts, whether the head could be

extracted or not, after it was lessened. I had no fear of the result myself. I requested each gentleman to make as correct an examination as he could, to determine, with tolerable accuracy, the space at the brim of the Pelvis ; each was of opinion, it was under two inches. From the nicest measurement I could make, I thought it ranged somewhere between one inch and half, and one inch three quarters. We also agreed upon immediate perforation, and upon leaving the head for some hours afterwards for collapse, before extraction should be attempted. I therefore perforated the head about four P. M. and evacuated as much of the contents of the cranium, as I could then get away. At eight P. M. we met again; no advance could then be observed ; uterine action was extremely languid, yet the woman kept up her spirits. I now proceeded to the extraction of the head. I got the craniotomy forceps well and firmly fixed upon the head under the right groin, and after such extractive efforts as I durst use, the instrument brought away the portion of bone and scalp to which it had seemed to have been so satisfactorily affixed. I was therefore now forced to have recourse to the crotchet. Having removed such portions of the cranial bones as were in my way, I presently procured a firm hold somewhere about the base of the skull, and after long continued efforts, I at length got down the head, to the surprize of one of my friends, completely crushed together. But even after the extraction of the head, I had considerable difficulties to encounter before the body could be made to pass, and I was obliged to apply to the assistance of the blunt hook, for the extraction of the shoulders and

body. The Uterus contracted, and threw down, by that contraction, the Placenta into the Vagina in a moderate time. I was nearly three hours in effecting this delivery. I saw this poor woman for several successive days, and at each visit she seemed more improved. I then entrusted her to the care of that gentleman, whose patient she more immediately was, with confident hopes that she would do well.

CASE LXXVI.

A Protracted Case, producing great Danger.

A little before six A. M. Thursday, November 23d, 1820, I was called out to Bethnal-green, to give an opinion in the case of a woman who was the mother of several living children, and who had been in active labour for forty-eight hours, attended by a respectable gentleman of the neighbourhood. I learnt from him, that he was called on the Tuesday morning, that the membranes had already given way, and that, with the discharge of the waters, the Funis had come down, which, on his first examination, possessed no pulsation; that the pains, after a time, became frequent and expulsive, yet the head made but a slow advance. In the evening of Wednesday, he asked the opinion of a neighbouring friend, who recommended him to wait the natural expulsion. As the case did not terminate as was expected, my assist-

ance was requested. On my arrival, the head was just expelled, but the poor woman appeared in a state of great exhaustion. The child's head was very large, under a tendency to become hydrocephalic ; the cuticle also readily peeled off the scalp and face. After waiting some time, the Uterus acting moderately, there was no advance of the shoulders ; I now made an examination, and found the Pelvis completely filled up by them. Now fixing a blunt hook in the axilla, I extracted one arm, the other readily followed ; the body, much swelled and putrid, was by and by expelled. The Placenta soon followed, and the Uterus contracted well. An anodyne was now given ; but the poor woman was left in a state of great uncertainty : she, however, did well.

Had I seen this case any part of the preceding day, I should not have hesitated to have perforated the head, for two reasons ; first, the disproportionate size of the head, which would have been determined by a proper examination ; and secondly, the certainty of the death of the child. There could have been, to my mind, no rational inducement for delaying delivery at the risk, and under the advance of such symptoms of exhaustion.

ON

RUPTURE OF THE UTERUS.

THE Gravid Uterus is an organ formed for making very great exertions under the act of labour, and is generally capable of bearing them without injury to itself; yet experience proclaims the melancholy truth, that sometimes the strength of its own contraction is incompatible with the continuity of its structure, which is now and then found to give way spontaneously, under its active attempts to pass a child into the world.

This accident is, comparatively, a rare occurrence; yet I have, unfortunately, witnessed numerous instances; and I also suspect, that it has repeatedly occurred without detection.

It appears to me quite impossible to determine the degree of contractile effort which any given Uterus may be able to make during the propulsion of a large child through a narrow Pelvis; and which it may be able to bear without present or future injury. And it is equally impossible to define that peculiarity of constitution, or that defect in the uterine texture, which tends to the production of this disaster. One

Uterus sometimes makes the strongest expulsive efforts for a great length of time, and bears them with impunity; whilst another Uterus undergoes a breach in its structure, under less active, and under apparently far more trifling exertions. Nay, one woman may have produced several living children without any extraordinary difficulty or inconvenience; yet she may eventually lose her life, from a rupture of the Uterus, in a subsequent labour.

The accident may therefore happen, in a case of protracted labour, under a narrowness or actual diminution of the Pelvis, without the least desert of blame, or without the possibility of its being prevented. The mischief has too frequently actually occurred, before it has been at all suspected, therefore means of prevention cannot be taken; and I know of no particular symptom threatening its approach, or indicating when it is about to happen, which would justly warrant a premature resort to delivery.

Rupture of the Uterus always takes place suddenly, and generally without any previous warning.— While the labour appears to be going on naturally but slowly, the woman is seized in the middle of a strong expulsive effort, with an uncommon pain in some part of the belly: this pain is of a very different nature from those pains of labour under which she has hitherto suffered; she has never felt the like in any preceding confinement. The attack of this new pain usually occasions a shriek, and is accompanied with the sensation of something having given way within: it is commonly followed by a sense of

weight and oppression, and sometimes by the feel of a rising of her *burthen*. The patient now involuntarily puts her hand to her belly, with a complaint of increased suffering, and utters frequent exclamations expressive of misery, with "Oh! this "pain!" This new pain is referred to one point, on one or other side of the uterine tumour, and it is stated to be similar to that which would be occasioned by cutting or tearing the parts asunder, and sometimes it is likened to the cramp. After its attack, the regularity of the labour pains is suspended: uterine action either ceases altogether, or is gradually diminished in energy and effect. By and by, the woman complains of faintness, which shortly approaches to syncope; the countenance becomes pallid, and is, at the same time, expressive of great anxiety; the eye rapidly loses its natural lustre; the pulse gradually gives way, and becomes quick and tremulous; difficulty in respiration is presently perceptible in a greater or less degree; and there is a general restlessness of body, with coldness of the extremities. In cases in which there has been no previous sanguineous discharge, a slight degree of external hæmorrhage now makes its appearance. In those, in which there has previously been some trifling shew, it is suddenly increased in quantity. Vomiting of greenish or dark-coloured fluids, in some instances, almost immediately supervenes to the accident; in others, it comes on a short time before the death of the patient. There is an occasional return of uterine action, but in a slighter degree, which the woman unavailingly assists by the voluntary ef-

forts of the Diaphragm and abdominal muscles ; she is at the same time perfectly aware, that there is a material alteration in the kind of pain, from her inability to bear down as she has been accustomed to do.

The size of the breach is, in different instances, variable ; to which the rapidity of the succeeding symptoms bears some relation. When the breach is small, little alteration is perceptible in the general course of the labour for some time after its occurrence, except that the patient is harassed by an unusual fixed pain, for the relief of which, bleeding perhaps is proposed ; as the rent is gradually enlarged by uterine action, and by the protrusion of some portion of the child through it, the dangerous symptoms rapidly advance. But when the uterine rent is immediately extensive, symptoms of excessive alarm are soon apparent, and the woman rapidly sinks. If the rent happen to take place on the fore part or side of the Uterus, some of the limbs of the child which may have escaped out of the Uterus, will be distinctly felt in a thin woman through the abdominal parietes, by a hand pressing on the belly, and will be immediately recognized ; the irregularity produced by such an occurrence will be sufficient to distinguish it from the uniform shape of the uterine tumour in its entire state. If the breach occur at the back part of the Uterus, the escape of the child is not so distinctly perceptible by the hand, unless the rent be so considerable, as to allow of its ready passage into the abdominal cavity ; in this case the uterine tumour diminishes in size anteriorly in pro-

portion to the quantity of the child which has escaped out of the Uterus. If the head be not firmly impacted in the Pelvis, it readily recedes from the situation it has previously been found to occupy, and especially under a large rent. But if the head shall have advanced low in the Pelvis, and be confined within its cavity, this change in its relative situation does not take place. If the presentation of the child be unfavourable to the entrance of the head into the Pelvis, the child, or the child with its Placenta, may be expelled into the abdominal cavity by the action of the Fundus Uteri. In this case, the Uterus contracts itself as perfectly as if it had expelled the child into the world, and the breach, through which the child passed, is diminished in extent by that contraction.

A rupture of the peritonæal coat of the Uterus sometimes happens without extending itself into the uterine structure. Under this occurrence, we observe all the symptoms of actual rupture of the uterine structure itself, in a diminished degree, except those connected with the escape of the child.

A breach in the vaginal surface also occasionally occurs, which seems to be produced by the continued pressure of the head, impelled by powerful uterine action. If the breach be trifling, the accident may not be productive of much inconvenience: if it be extensive, and especially if an opening be made into the abdominal cavity, such a similarity of symptoms follows, as induces a suspicion that the Uterus has given way.

Rupture of the bladder is likewise an accident

which may happen, under a state of protracted labour, from inattention to the relief of that viscus when it is distended by urine. It is followed by many of the symptoms before enumerated, which are considered to be indicative of a rupture of the Uterus, and it is equally fatal in its consequences.

I have never met with a rupture of the Uterus in a first lying-in. The accident has happened, in those cases which I have seen, in a subsequent labour, and sometimes after several difficult births, though living children have been expelled. I am thence led to suspect, either that the Uterus has received some local mechanical injury from the violence of its own efforts, or from the previous effects of artificial assistance, by which its structure is, at this point, weakened; or, that it is thinned at the part where it gives way during the last months of gestation, by continued pressure against some prominent part of the Pelvis.

The breach of structure usually happens somewhere about the Cervix; either anteriorly towards the Symphysis Pubis, or posteriorly towards the prominence of the Sacrum. The rent is either transverse, or is carried laterally upward. The Fundus Uteri rarely gives way; yet its body and sides occasionally do.

This disastrous accident may be produced by the hand of the operator, in an ill-judged or too violent attempt to overcome the resistance offered by permanent contraction of the Uterus, in a case of preternatural presentation of some hours standing; in which the liquor amnii has been for some time dis-

charged, and in which the Uterus is firmly contracted upon the body of the child. It may also spontaneously occur before the act of labour is completely established; nay, even as early as the fifth month of pregnancy.

I have before hinted, that previous to a rupture of the Uterus, no particular symptom meets the eye, by which the practitioner or the patient is forewarned of its occurrence, so that means of prevention can rarely be taken. The symptoms of that case must be extreme indeed, which can justify the certain destruction of the child by the perforation of the head, under a protracted labour, in a woman who has passed a living child or children before; or who has passed a dead child without any considerable difficulty; upon the mere presumption of the Uterus being likely to give way, or upon the possibility of its so doing. If such a deterioration of the Pelvis were found to have taken place in the interval, as to preclude the hope of the expulsion of the head entire, or if any diseased enlargement of the head be ascertained, under either of these occurrences, the case would assume quite a different aspect. Yet if, by any symptom, we could be previously convinced that the accident would happen, it might be always prevented by timely delivery; but whether the continuance of strong uterine action, after the complete dilatation of the Os Uteri, (under unusual obstruction to the descent of the head in a Pelvis possessing barely room for its passage,) may be thought a sufficient justification of artificial delivery, is a question which can only be decided by sound judgment, exercised on a sight of the case.

Every case of rupture of the Uterus which I have seen, has sooner or later proved fatal. Some women scarcely survive delivery: others bear up against the effects of the accident for several days. Some cases are upon record, in which the woman has recovered. Notwithstanding my want of success, I have always thought it my duty to offer a chance of life to the mother, by the only practical expedient—by as early a delivery after the accident, as each case would allow. I cannot accede to the doctrine of allowing the woman to die undelivered.

In all cases there is a narrowness, if not an absolute deformity of the Pelvis, so that perforation of the head becomes, too commonly, indispensably necessary to the delivery. If the presenting part of the child have retreated from the situation which it had previously occupied, so that a considerable portion of the child has escaped into the abdominal cavity, delivery must be effected by the introduction of the hand, and extraction by the feet.

After the extraction of the child, an immediate discharge of blood follows. This blood has issued from the torn uterine vessels into the Uterus, or into the abdominal cavity; it has been there pent up, and its previous escape has been prevented by that portion of the child which occupied the Pelvis. The Placenta is sometimes separated, and passed down into the Vagina by the uterine effort. At other times it remains still adherent to the uterine surface, and requires the assistance of the hand to separate it, and bring it away. I am always anxious to complete the delivery quickly by a speedy removal of the Pla-

centa ; and when I have introduced my hand through the Os Uteri for this purpose, I have occasionally detected the rent in the Uterus by the passage of the fingers through it, and now and then by the feel of their extremities against the inner surface of the abdominal parietes. This is an indubitable test of the accident.

After the delivery, a suitable dose of opiate will be necessary, to allay the effects of that general irritation which the accident has produced, and to induce present quiet ; and such medicines are subsequently to be administered as the symptoms of each case may seem to require. But under such extensive internal mischief, a mere palliation of symptoms can alone be expected. If the patient survive the more immediate effects of the accident, symptoms of abdominal or peritonæal inflammation presently supervene, and are gradually progressive ; the belly becomes tender, and swells ; the appearance of the countenance indicates great distress ; the pulse and the animal powers, after an uncertain time, begin to flag, and then give way ; and the patient sooner or later sinks, with, perhaps, a previous convulsive struggle.

As the number of women who have ultimately recovered from this accident, is at the present so trifling, and as the occurrence is in itself almost necessarily fatal to the mother, it may be a question worthy the consideration of the profession, whether the Cæsarian section, offering a mode of freeing the mother from the child, with a chance of its life, ought not occasionally to be substituted for the perforation of the head. But in determining on this tremendous

expedient, which will place the chance of recovery to the mother in a still lower scale, we ought previously to ascertain, if not to a certainty, as far, at least, as probability will allow, that the child is still alive under the breach in the uterine structure. If this be the case, such a length of time ought not to be allowed to pass away in the interval, as can be supposed to interfere with that life⁴⁸.

CASE LXXVII.

Rupture of the Uterus, under the Induction of Premature Labour.

MRS. S. whose case of difficult labour is reported at page 296, after her recovery, soon became again pregnant ; and knowing that she had a bad Pelvis, upon my being engaged to attend her a second time, I proposed bringing on premature labour, at the seventh month. When I called upon her for that purpose towards the end of October, 1815, I found her under some pain, and on examination the process of labour had actually spontaneously commenced. It went on favorably, and a living child was in a moderate space of time expelled, at about the seventh month. The child did not long survive : the mother

48 [This is a subject of great interest, and should be carefully considered. We have attempted in some other place, (Phil. Jour. of the Med. and Phys. Sciences, Vol. I. No. I.) to give this accident the consequence it appears to merit.—**AM. ED.**]

recovered without any unpleasant symptom, and was soon abroad. In the Spring of 1816, she conceived a third time, and expected, according to her account, to get her bed some time in December. I saw her in the early part of October, when she supposed herself to be about seven months advanced in pregnancy. Her own account, and the appearance of her person, did not satisfy my mind that she was so far advanced, and I was anxious that she should go on till towards the end of the month, as far as I thought consistent with the passage of the child, before I had recourse to the means necessary for bringing on premature labour. On Friday, the 25th October, the liquor amnii was discharged, to the quantity of half a pint. I called accidentally the next day, between two and three o'clock, and not excepting to find the process of labour established, I had made no arrangements for staying with my patient. On my entering the house, one of the females met me, and said, she was glad to see me, for that they were just going to send for me ; that Mrs. S. had been in pain most part of the morning, and that now she was very ill. I went up stairs to my patient, who was, at that time, sitting up, and in good spirits, and made an examination ; the head was coming down into the Pelvis, and seemed soon likely to clear its brim ; the pains were at this time active and good ; so that there was every prospect of the labour being soon happily terminated, and I gave an opinion to that effect. The nurse was sent for, and preparations for delivery forwarded. Being desirous of apprizing a medical gentleman, whom I had left below, (who had accompanied me to the west end of the town for

the sake of conversation, and who was waiting to return into the city with me,) that I was likely to be detained a short time, I came down stairs for this purpose, and remained with him about a quarter of an hour, or perhaps not so much. During my absence, rupture of the Uterus took place. I was called hastily up stairs, when I was told the woman had had a fit. The pulse, at this time, was not much altered, but the countenance was pale, and the woman complained of being very ill. She presently shewed signs of sinking, and was seized with difficulty of breathing, and a sense of pain very different from the labour-pains, which had almost disappeared. I went into the neighbourhood, with a view of procuring some instruments to enable me to deliver her, and, after some time spent in this object, I obtained the perforator and crotchet. On my return, meeting with a professional friend, I requested his opinion and assistance. The head had by this time somewhat retreated, so that I introduced my hand and delivered by the feet ; which satisfied me sufficiently of the nature of the accident ; the child was dead. The delivery was completed by a little after four ; and the poor woman died about an hour after delivery. I was allowed to inspect the body the next day, when the Cervix Uteri was found to be ruptured from side to side at its back part, opposite the prominent ridge of the Sacrum.

This unfortunate occurrence was completely accidental : it had no reference whatever to the act of bringing on premature labour. The head appeared to me likely to pass without difficulty or danger, only a few minutes before the accident happened. I sus-

pect that the constant pressure, occasioned by the weight of the child, of the lower part of the Uterus upon the projecting Sacrum, caused such a thinning of its structure there, as disabled the Uterus, under strong expulsive action, from preserving its continuity.

CASE LXXVIII.

Rupture of the Uterus, produced under the Attempts to expel a Head under Hydrocephalus.

ON the evening of Friday, September 12th, 1817, I received a note from one of the midwives of the charity, requesting my immediate attendance upon a poor woman, in one of the streets behind Shoreditch Church, in labour of her seventh child, aged 30. The note stated, "that the woman had been "in slight labour several hours, and that the mid- "wife was called about half after four that after- "noon; that she found the Os Uteri dilated, under "a fair presentation, to the size of a crown; that, "at that time, the pains were strong but short; that "about five o'clock the pains, (meaning the uterine "efforts,) abated, and then lay in her stomach and "right side." By which I was given to understand, that the labour-pains had ceased, but that she was suffering pain from some other cause. I was further informed, "that she had faintings and cold sweats,

“ and could scarcely fetch her breath.” I paid immediate attention to this summons, and hastened to the address given; but on my arrival, the woman had breathed her last about a quarter of an hour. I put my hand upon the belly, and could distinctly feel the child in the abdominal cavity. I was desirous of performing the Cæsarian section instantly, for the sake of the child; but the husband and bystanders would not permit it: they even scouted the idea. I did not make an examination *per vaginam*, but I was told there had been a slight discharge of blood. After much entreaty, and with great reluctance, the friends of this poor woman submitted to an inspection of the body. It was opened by a neighbouring surgeon in the presence of another professional gentleman and myself, the following (Saturday) evening. On dividing the abdominal parietes, the breech of the child presented itself, and on turning it a little to one side, the rest of the child escaped out of the uterine rent, except the head, which had passed partly into the Pelvis, and completely filled up the brim. Upon withdrawing the head from this situation, it was found to be hydrocephalic: the Pelvis was well formed. On opening the head, about three pints of watery fluid gushed out. The bones instantly collapsed, so that the parietes might be readily squeezed together by the hand. The fluid was external to the Pia Mater, the vessels of which were enlarged and turgid. On puncturing the anterior fontanel, the fluid readily escaped. The body and limbs of the child were of the usual size, and by no means extenuated.

The rupture of the Uterus extended from the Cervix almost to the Fundus on the right side, so as to allow the greater part of the child to escape into the abdomen. The extent of the rupture will sufficiently account for the rapidity of the symptoms. A quantity of bloody fluid was contained in the Pelvis.*

CASE LXXIX.

Rupture of the Uterus, under Protracted Labour.

MRS. B. a stout woman, of the parish of Shoreditch, was taken in labour of her fourth child on the evening of Sunday, November 6th, 1814, her former cases had always been slow and lingering. Her usual attendant was sent for, who remained with her during the night. The labour seemed to advance slowly, as before, without any symptom to excite alarm, till between four and five o'clock on the Monday morning, when the regular labour-pains suddenly ceased ; she afterwards became faint, and complained of a violent and unusual pain about the navel. The head of the child was at this time low down in the Pelvis, which

* In the Medical and Physical Journal, for October, 1813, the reader will find an account of a dissection in a case of rupture of the uterus, detailed by me at some length : the presentation was preternatural, the child escaped into the abdomen, and the woman died undelivered. After death, the uterus was found contracted, as well, indeed, as if the child had passed into the world. I gave the editors of the same Journal another history of a rupture of the uterus, which was inserted in September, 1814. To these cases I refer the reader.

induced her accoucheur to attempt to deliver her with the vectis, but in this attempt he was foiled. I was called to the case about seven. I found the head well down, but wedged in the Pelvis, with the vertex almost at the perinæum, and with an ear within ready reach of the finger; in this situation it had remained, as I was informed, for many hours, without advance or retreat. On examining the belly, an evident irregularity in the anterior shape of the uterine tumour was perceptible by the hand; the belly was tender to the touch, so that the slightest degree of pressure produced uneasiness. The above-mentioned pain was constant, and besides, there were, at long intervals, trifling uterine contractions. The pulse was weak and quick; the breathing frequent and laboured; and the countenance distressed. These symptoms excited strong suspicions in my mind that the Uterus was ruptured. On consultation, immediate delivery seemed the only resource, and I proceeded upon it without loss of time. The low situation of the head admitting the ready application of the forceps, I applied that instrument, and used such a degree of purchase as I thought advisable, without producing the least advance of the head. Failing in this attempt I perforated the head; but I was obliged to use considerable force before I could extract the head after its diminution, and the evacuation of its contents. Even after having succeeded thus far, I was forced to continue the same powerful efforts for the extraction of the body. The Placenta was separated spontaneously, and was withdrawn without trouble. Previous to, and after the removal

of the Placenta, there was some bloody discharge. Towards evening the woman was much recruited ; but there were pain and tension of the belly, with a quick pulse. The next morning these symptoms were upon the increase ; the pulse had become small and rapid, the countenance was dejected, and the breathing oppressed. She lingered till the evening, when she expired.

An inspection of the body was requested, but it was refused.

CASE LXXX.

Rupture of the Uterus, after several Living Children.

ABOUT noon of Saturday, October 10th, 1818, I was fetched from the Lecture-room at the London Hospital, to Mrs. J. at Islington, under symptoms of great danger during labour ; who was the mother of several living children. On visiting this patient, I learnt that she fell into labour during the night preceding ; that she went on apparently well till about nine A. M. ; the Os Uteri dilating, and the head advancing ; when she suddenly complained of an unusual spasm-like pain in the belly, which was soon followed by vomiting, difficulty of breathing, depressed countenance, a small quick pulse, and coldness of the hands. After the attack of this new pain, the labour-pains declined, and almost ceased ; the

head also left the situation it had previously occupied in the Pelvis. I saw this patient about one P. M. From the account I had received, and from the external feel of the belly, I had no doubt that the Uterus was ruptured. I made an examination *per vaginam*, but no part of the child could be felt by the finger. There was a slight bloody discharge. On a consultation with her attending accoucheurs, (for two were then present,) it seemed doubtful whether delivery could be effected *per vaginam*. I determined upon a more correct examination, by passing the hand, prepared at the time to turn the child, if possible. Introducing my left hand, without meeting any obstructing impediment, I reached the head, and tracing the body, I found the feet, which I brought down; and in this operation, I was perfectly satisfied my hand was in the cavity of the abdomen. The child was extracted without difficulty, and the Placenta speedily followed. During the operation, the woman suffered less inconvenience than could have been supposed, but she complained afterwards of the continuance of that extraordinary pain. Opiates were prescribed at intervals, and the patient carefully watched.

The next morning (Sunday,) she had passed a more comfortable night than could have been expected; she appeared languid, but complained little of the belly.

Sunday evening she had some pain about the navel; the pulse was small and quick, but the countenance was good.

On Monday she was not so well; the belly was becoming very tender and swelled, and the pulse

quicker; yet the aspect of the countenance was not altered.

On Tuesday she was much worse; she vomited frequently; the pulse was quick and small: the belly was more swelled, and she had occasional singultus. Under these symptoms she languished till towards midnight when she expired. Leave could not be obtained to inspect the body.

CASE LXXXI.

Rupture of the Uterus, between Perforation and Extraction of the Head.

ABOUT eleven A. M. Wednesday, June 21, 1820, I was called, by a note from a midwife of the charity, to the assistance of a poor woman, in Willow Gardens, Leonard-street, about forty years of age, in labour of her seventh child; whose former children had all been still-born; some of them had passed naturally, but in the last instance, I had opened the head, after several days suffering. Her labour had commenced the day preceding; it went slowly but regularly on till about five A. M. this day, when the membranes gave way, and the pains increased. These favorable appearances induced the midwife, who was then ignorant of the former proceeding, to hope that the labour might be naturally terminated; but afterwards learning what had taken place before, and finding her expectations not readily realized, she

wrote to me about 11 A. M. requesting I would see the woman. I visited her immediately. The pains were then strong and active; yet the dilatation of the Os Uteri did not exceed the size of half a crown; it was, besides, firm and rigid: the head was lying at the brim of the Pelvis. I could also readily detect the same deformity of Pelvis as before. I therefore determined to perforate the head immediately, and to postpone its extraction for a few hours, till the Os Uteri was more dilated. The husband was sent to my house for the necessary instruments, and during his absence I waited with the patient. At this time there was no reasonable prospect of any accident: the pains were regular; the pulse was good; the countenance natural; the bowels and bladder had been spontaneously evacuated, and the woman was in high spirits at the thoughts of my presence, and of being presently relieved. On the return of the husband, I perforated the head about twelve, then leaving the patient to the care of the midwife, I proposed seeing her again in a few hours, and extracting the head. Within two hours after I had left the house, viz. about two P. M. I received another note, begging for my immediate assistance, "as the poor "woman was very bad." I hastened to her hut, and on my arrival, found her sinking under all the symptoms of rupture of the Uterus, and complaining violently of a singular pain in the belly. This occurrence had happened about an hour previously. I extracted the child without much difficulty, to which the Placenta soon followed, but my patient did not long survive delivery.

The body was inspected the next day. The Uterus was found to be ruptured on its anterior part, above the Os Uteri, and opposite to the Pubes, almost from side to side, the rent extending laterally towards the left broad ligament. The peritonæal covering had not given way, except at one point, through which some blood had escaped into the cavity of the abdomen ; so that the greater part of the blood which issued from the torn vessels was confined under the peritonæal coat. On removing the coagula, the extent of the uterine rent was perceptible.

We have an instance, in this case, of an Uterus expelling several children with difficulty, and, the last time, of its continuing its exertions for several days without injury ; yet now rupturing itself after a few hours action, and not, to appearance, very violent. It had most probably been thinned by pressure, or had received some injury in its structure by its previous exertions.

CASE LXXXII.

Rupture of the Uterus, under intended Perforation.

AT eight A. M. Tuesday, June 27th, 1820, I was summoned by a note from a midwife, to see a patient near Rosemary-lane in labour of her second child,

who had been poorly for several hours, to whom the midwife had been called about two A. M. and whose waters were discharged at five. The presentation was natural, but the head was above the brim of the Pelvis, which was ill-formed, yet it seemed to me to possess a diameter at the brim equal to about two and a half inches. The pains were regular, but not strong ; the Os Uteri was dilating, and the woman's strength and spirits were good. Her former labour had been terminated by lessening the head ; notwithstanding, I did not think myself justified at that early stage of the present process in perforating. I therefore desired the midwife to wait with the patient, and to write to me again in a few hours. About one P. M. I received a second note, informing me, that the pains were stronger, and the Os Uteri more dilated, but that there was no advance in the head. I attended this call immediately, with my perforating instruments, and when I entered the room, I found the woman sitting up, and complaining most heavily of a *cramp-pain* in the side of the belly, which had come on suddenly a short time before, viz. between the midwife's writing her second note, and my arrival. The countenance was already pallid and distressed ; the pulse was small and quick ; the hands were cold and clammy ; and the breathing had become difficult. On an examination, I found that the head had considerably receded from the situation it occupied in the morning. These symptoms sufficiently convinced me of the nature of the accident ; and I had no alternative but in immediate delivery, which I effected by passing my hand and bringing down the

feet ; but I had such difficulty in getting the head through the Pelvis, that I was obliged to lessen it by perforating it behind the occiput, and then extracting it. The Placenta was withdrawn without difficulty. An opiate was now given.

The next morning, Wednesday, the poor woman has passed a most restless night ; she had frequently vomited a quantity of black ill-tasted fluids ; her pulse was small and tremulous ; her extremities cold and clammy ; her breathing was difficult, and she complained that she could not fetch her breath below the sternum. Under these symptoms she did not long survive.

The body was inspected the next morning at eight o'clock. It was, externally, much swelled, and on dividing the parietes a quantity of bloody serum, mixed with puriform matter, escaped. The intestinal canal was inflated. The Uterus was well contracted, and on drawing it forward, a large rent was discovered on its posterior part opposite to that point of its surface which rested on the prominence of the Sacrum, which had a sharp ridge, almost as sharp, indeed, to the finger, as the edge of a blunt knife. The Pelvis was about two inches and a half from Pubis to Sacrum.

CASE LXXXIII.

Rupture of the Uterus, in a Shoulder Presentation.

SOME time ago, I was sent for in a hurry to a patient at a short distance, attended by a respectable accoucheur. On my arrival, I was told that the hand was down in the Vagina, with the shoulder presenting ; and that some attempts had been made to turn the child, in which my friend had not succeeded. The woman had not been long in labour, but she seemed much exhausted. Being prepared to turn the child, I passed my hand with great ease, and pushing up the shoulder, I readily found the feet, which I brought down ; but in the operation, I did not meet with that resistance which I expected in a contracted Uterus, and I felt satisfied that the Uterus was ruptured : either under the former unsuccessful attempts, or by its own strong contraction. The Placenta was removed without difficulty. The woman survived but a few hours.

CASE LXXXIV.

Rupture of the Uterus previous to Labour.

IN October, 1817, a gentleman in the country, who had been my pupil, sent me a ruptured Uterus and a Foetus in its membranes, with the following account of the case.

“ I was sent for to Hannah Cooling, a poor woman in a village four miles from this town, at four p. m. October, 10th, who had flooded very much in a former pregnancy. The messenger informed me that she was again in the same state, and requested I would make great haste. On my arrival, I found she had been dead nearly an hour, and the haemorrhage and pains had been considerable. She had been tolerably well until about eleven o'clock that morning, when she complained of a violent pain in her right side, which, she said, was different from any thing she ever had before felt. As the pains and haemorrhage had been so inconsiderable, I could not satisfactorily account for her death. I therefore requested leave to open the body, which was allowed, and found a rupture of the Uterus, through which the Foetus, inclosed in the membranes, had passed into the abdomen.” The Foetus had not exceeded the seventh month.

CASE LXXXV.

Rupture of the Uterus about the Fourth Month of Pregnancy.

ABOUT four P. M. on Friday June 2d, 1820, I was called in a hurry to see a lady in Providence-row, Finsbury, who was stated to be dangerously ill, and who was said to be about four months advanced in pregnancy of her first child. I learnt that she had been suddenly seized with sickness and vomiting about eleven A. M. (after passing a good night,) which her friends attributed to some mackerel dressed with vinegar, of which she had freely eaten the preceding evening at supper. The family apothecary had been called, who ordered some medicine; but as she seemed to be getting worse hourly, I was sent for. I found her under symptoms of the greatest danger; her pulse was scarcely to be felt; her countenance was pallid and depressed; her hands were clammy and cold; and she complained of pain in the belly. There had been no external flooding, yet the symptoms struck me as being indicative of internal loss of blood, or of the effects of lead on the constitution. I ordered some opening medicine, and the frequent injection of clysters, with a promise that I would shortly see her again. In little more than an hour a message was sent to my house, requesting I would see her again immediately; on my arrival at the

house, she was dead. Leave was obtained to inspect the body the next day. The Uterus was found to be ruptured on its left side, and the Ovum had escaped in its membranes entire into the cavity of the abdomen, in which was also a large quantity of coagulated blood to the amount of several pounds. The Uterus had a singular appearance: it seemed double, and to consist of two parts, united longitudinally together; but the ruptured portion had no external opening, that is, it had no *Os Uteri*. Each portion had an ovary attached to it. This Uterus and Ovum are preserved.

CASE LXXXVI.

Death, occasioned by a Rupture of the Peritoneal Coat of the Uterus.

ON the morning of the 18th of July, 1817, I was requested by a respectable accoucheur to give him the meeting at the house of a patient in the City Road, to visit a lady whom he had attended the preceding evening of her seventh child, after a tedious labour, and whom he represented to be dangerously ill. On attending the appointment, we had the mortification to find that our patient was dead. From the time of her delivery, she had gradually sunk, and died somewhat suddenly shortly before our arrival. I could not learn that any particular occur-

rence, to excite alarm, had happened during labour, or that there was any external flooding ; notwithstanding, she appeared much depressed, and gradually declined. Leave was obtained to open the body that evening. The belly was much swelled, and soft. On dividing the abdominal parietes, a considerable quantity of blood and bloody fluid was observed in the cavity of the belly ; the intestinal canal was inflated, and the omentum loaded with fat. The viscera generally were healthy. On bringing forward the Uterus, which was well contracted for the time, a rent of several inches in length was discovered in its peritonæal coat, on its back surface, extending nearly to the insertion of the left broad ligament, in which the fleshy structure of the Uterus did not seem to be implicated.

CASE LXXXVII.

Rupture of the Vagina during Labour.

ABOUT five in the morning of Monday, July 31, 1820, my assistance was requested by a medical friend in a case of difficulty and danger, near Goswell-street Road. I visited the patient immediately, and found a woman towards thirty, in labour of her second child, under great distress, and with every symptom of rupture of the Uterus. She could with difficulty bear the recumbent posture. Her breath-

ing was laborious, with the frequent exclamation of "Oh ! my breath !" She complained of a constant sense of sinking. Her belly was swelled, and so tender that the slightest touch caused pain. Her pulse was small, quick, and tremulous ; her extremities cold ; and her countenance was pallid and depressed. I received the following account of the case.—That this woman passed a small child six years ago, after a lingering labour ; that her present labour commenced on the Saturday morning ; it went on slowly but progressively through the day, under the care of a young gentleman ; the membranes gave way towards evening ; and about midnight the Os Uteri was completely dilated ; but the head remained at the brim of the Pelvis. That throughout the following day, (Sunday) the Uterus continued to act regularly, and, towards evening, the head was descending, the woman in good spirits, and a happy issue presently expected. That, about two o'clock on the morning of Monday, when, to appearance, she was going on well, she was suddenly seized with an excruciating pain in the left side of her belly, totally different from labour-pain ; that her countenance immediately changed, her extremities became cold, her skin was covered with a clammy sweat, and her pulse altered ; that she afterwards vomited, complained of faintness, and of an affection of her breathing ; and that, for a time, the Uterus ceased to act. Her attendant, aware that some internal mischief, had happened, called in a medical friend, who, seeing the urgency of the case, perforated the head, but did not succeed in satisfactorily extracting it, so that an appeal was now made for my assist-

ance. I proceeded to extract the head, without loss of time, which was not effected without some difficulty : the body of the child quickly followed. The Uterus contracted well, and threw down the Placenta, which was shortly removed with perfect ease. The woman was now put comfortably into bed, and a large dose of laudanum was given in some brandy and water, which was soon rejected. She was still much distressed by frequent retchings, which caused an increase of pain about the belly ; but after some hours they ceased. Towards evening of that day, (Monday) she seemed relieved ; the pulse had improved in strength, and had diminished in frequency ; she had enjoyed some refreshing sleep ; but the belly was swelled, yet less tender. The next morning (Tuesday) the retchings returned, and the belly had become more painful. A number of leeches were now applied, from which she expressed herself relieved. A dose of calomel was also given, and a purgative enema afterwards injected. Towards evening the symptoms increased ; about midnight she became more restless ; and, her strength declining rapidly, she died about six A. M. on Wednesday.

The body was inspected on Thursday morning. The belly was externally tense and swelled. On dividing the abdominal parietes, a quantity of offensive gas escaped, and a quart or more of bloody serum was observed in the abdominal cavity. The peritoneum, generally, was more or less inflamed ; but that portion investing the Uterus, and some parts covering the small intestines, were more turgid with blood than the general surface. The intestinal canal was considerably inflated. The Uterus was well

contracted for the time after delivery, and was free from injury. The bladder shewed marks of inflammatory action. Upon drawing forward the Uterus, an extensive laceration of the posterior part of the Vagina, extending towards the left side, was discovered a little below the Os Uteri, which communicated with the abdominal cavity, but which did not implicate in its ravages any part of the Uterus. The breach of structure of the vaginal coat, was extensive, whilst that of the peritonæal coat did not exceed an inch in length. The Pelvis measured three inches from Pubis to Sacrum, and five from side to side ; it was also rather deformed.

CASE LXXXVIII.

Suspected Rupture of the Vagina.

ON the morning of Tuesday, October 19th, 1819, I was requested to visit a lady, in the neighbourhood of Hackney, who was in labour of her third child, and whose previous labours had been very favourable. Her attending accoucheur was called about one o'clock in the morning of Monday, at the commencement of pain ; but the process going on slowly, after waiting in the house till about nine, and finding his presence not necessary, he left the patient, and saw her repeatedly during the day. Towards evening, uterine contraction became more

active ; presently the membranes gave way, and expulsive efforts succeeded ; the head gradually descended, so that, by midnight, the vertex almost reached the perinæum ; in short, the labour seemed to be going on naturally, but slowly, and there was every reasonable expectation that it would soon be favorably terminated. By and by, however, the uterine efforts began to diminish in power and effect, and, after the lapse of a few more hours, the patient's strength appeared to give way, and she complained of a fixed pain in the left side of the belly, just within the Ilium, which prevented her lying on that side, with any degree of comfort. The labour appearing for some time stationary, and the patient to be in a state of uncertainty, my attendance was requested. I saw her about nine in the morning. On entering the room, I found her kneeling on the floor by the side of the bed, and supporting herself on her elbows. She had chosen this posture, because it was more easy to her than a lying position ; and stated, that she could not lie down on her left side, without much increase of suffering. Her countenance was pale, anxious, and dejected ; her pulse quick and languid ; respiration was quickened, but not laboured ; and her belly was tender to the touch, especially about the part abovementioned, on pressing which, she complained heavily. The head of the child was occupying the Pelvis, with the vertex low down, and the face to the Pubis. The external parts were much swollen and painful. There was almost an absence of uterine contraction, with a slight bloody discharge. This lady possessed a strong

mind, and bore her sufferings with more than usual fortitude. The symptoms appearing to me, and to my medical friend, to be indicative of serious mischief, we determined upon immediate delivery ; and under the swelled state of the external parts, the absence of pain, the situation of the head, and the probability of a breach of structure about the Os Uteri, or in the Vagina, the perforation of the head offered the most easy and the most ready mode of relief. We had the satisfaction of being convinced, on perforation, that the child had lost its life previously. The child was extracted without much difficulty, the Uterus contracted, and a quantity of blood followed the exit of the child. The uterine tumour was now firm, and pretty well lessened. After waiting a reasonable time for the natural separation of the Placenta, and some discharge coming on, it was deemed prudent to remove the Placenta by the hand. On the introduction of my left hand into the Uterus, the knuckles passed over a soft flabby space, which gave little resistance, and at the moment impressed me with the idea, that the Vagina had given way. The Placenta was readily removed, and the Uterus contracted properly ; and after relieving the bladder by the catheter, an opiate was given. It would be tedious to enumerate each day's report and the treatment : suffice it to say, that the symptoms, for the first few days, were very alarming, particularly pain and tension of the belly, but they so far subsided, as to afford some hope of recovery ; the bladder was occasionally relieved by the catheter, and the bowels by aperients. On the 21st, a quantity of offensive gas, with some bloody fluid, escaped *per vaginam*,

on pressing the belly. The discharge, *per vaginam*, was, upon the whole, more copious than usual. On the 24th, the alarming symptoms had nearly disappeared ; the lady had got some sleep in the night, and could now turn herself in bed with ease ; she was in good spirits, and stated herself to be considerably better. Towards evening, she became sensibly worse, and expired in the course of the night. Leave could not be obtained to inspect the body ; yet little doubt remained on my mind of the nature of the case.

CASE LXXXIX.

Rupture of the Bladder.

ABOUT seven in the evening of Friday, July 12, 1816, I was called in a hurry to see a poor woman in Bacon Street, Spital-fields, who was represented to be in very great danger in her first labour. Being from home at the time, and the case being considered urgent, a professional friend, to whom I have been frequently indebted for his kind assistance, was requested to visit this patient, who, finding her *in extremis*, proceeded to immediate delivery, by lessening the head, and extracting the child. He was told that this poor woman's labour commenced slowly on the Sunday night, that on the Monday a midwife was sent for, who pronounced the woman to be not in labour, and

left her ; on the Tuesday, another midwife was sent for, who stated, that the pains must be much stronger, before her services could be useful, and desired that she might not be troubled again till they were so. From Tuesday to Friday she was seen by no one ; the pains had entirely declined, and the ignorant people about her were waiting for their return : towards the evening of Friday, she became suddenly ill, so as to alarm the by-standers. Mrs. L. was then called, for the first time, who immediately wrote to me, informing me of the case : " That the Os Uteri was fully dilated, that there were no pains to do good, and that the woman appeared convulsed." At the visit of my friend, she seemed indeed much exhausted ; the pulse was scarcely to be felt ; the extremities were cold, and the countenance sunk. She was quite sensible, was without pain in the head, and wished much to be relieved. She particularly complained of a constant acute pain about the Umbilicus, but the Uterus shewed no power of action. After delivery, some brandy, with water, was given to her ; bottles of hot water were applied to the extremities, and fomentations to the belly. For about an hour she seemed to revive ; after that time, she began to sink, and expired within two hours after delivery. The body was opened the next day, in the presence of an eminent accoucheur and myself ; the bladder was found to be ruptured, the contents of which had escaped into the abdominal cavity, in large quantity. There was a slight projection of the Sacrum, which impeded the ready passage of the head.

CASE XC.

Rupture of the Bladder.

ABOUT ten at night, on Wednesday, June 16, 1819, I was called into one of the streets, near Goswell-street, to visit a woman, aged 36, in labour of her first child. The process had commenced on the morning of Monday, it went on slowly but progressively till the early part of this day, (Wednesday,) when the pains began to be more violent and forcing. About four, p. m. this woman had been seized with an uncommon pain in the right side, near the navel, with the sensation of something having given way within her, and afterwards the labour-pains began to decline, so that they had, at my visit, almost disappeared. The breathing had become short ; she felt low and faint, but there was no external discharge of blood. The pulse was small and quick ; the tongue was dry ; and the countenance looked ill. The head of the child was occupying the Pelvis, and the vertex had descended almost to the perinæum, but it was placed diagonally, with the forehead towards the right groin, and with the right ear under the Pubes. Upon inquiry into the state of the bladder, I was told by Mr. R. who had been in attendance since Monday evening, that she had not, voluntarily, passed any urine, but that it had dribbled away all the labour. Upon examining the belly, no vesical

tumour was perceptible, but an irregularity was observable upon the uterine tumour, like a bent elbow or knee, which led me to suspect the Uterus to be ruptured. Some blood had been taken from the arm by Mr. R. on the commencement of this pain, so different from labour-pain. Immediate delivery appeared to me to be the only rational resource; and applying the forceps, I extracted the head with some difficulty. After the head was extracted, there was an appearance of blood, which seemed to strengthen my previous suspicions. The Placenta required the introduction of the hand for its removal. After delivery, the Uterus contracted, but the same irregularity was still perceptible upon it. The next day, (Thursday), the belly was found painful and swelled; there was a small quick pulse; the bowels had been relieved; and a very small quantity of urine had been passed. The day following, (Friday,) the belly was more tumid and painful; the pulse was sinking, and the extremities were becoming cold. This evening the woman expired. Leave was obtained, with some difficulty, to inspect the body. Upon dividing the abdominal parietes, a large quantity of bloody fluid was seen in the cavity, some part of which escaped; the intestinal canal was inflated, and was inflamed on its peritonæal coat; the Uterus was well contracted and entire, having, on the fore and upper part of its substance, a fleshy tubercle larger than a hen's egg. The bladder was empty, and its fundus was blackish for about the size of half-a-crown, and on raising it up, we discovered a hole sufficiently large to admit the finger freely. Under the distension of the bladder, this hole would have been oppo-

site to the tubercle on the Uterus. This case needs no comment: it is too plain, that the distension of the bladder had been entirely overlooked.

I insert this case, as an additional stimulus to my young brethren to watch the bladder under lingering labour⁴⁹.

49 [We passed without remark, the cases of "cephalotomy," intending to say a few words upon that subject in this place, that our observations upon rupture of the uterus, &c. and them might be condensed in one note. We consider the cases illustrative of both these subjects to be highly interesting: and as they describe the condition of the patients well, and as we believe most faithfully, as well as trace every practical step to the completion of the labour, they cannot fail to be most instructive to the young practitioner: and as "cephalotomy" should never be had recourse to but from the most imperious necessity: and as that necessity can only arise from deformity of the pelvis, and as the American practitioner at this time will have but few opportunities to exercise it, as rickets is comparatively a rare disease among us, it becomes important to him, to have before his eyes a faithful relation of cases, as managed by a cautious, judicious, yet bold master.

As regards the rupture of the uterus, we trust the importance of the subject will call the attention of practitioners to its thorough investigation—in every point of view it is of high interest, and well deserving of more consideration than has hitherto been bestowed upon it; because it has been pretty uniformly fatal, it has been falsely imagined necessarily so. Under this accident, we hold it to be the sacred duty of the accoucheur, to offer assistance by delivery to the suffering woman, and to be a crying sin if he withhold it, when the remotest prospect of success presents itself.

We particularly recommend to the notice of the young practitioner, the consequences from allowing the bladder to be over-distended.—A.M. Ed.]



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